

**Meeting of the Federal Open Market Committee on  
August 10, 2004**

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., starting at 9:00 a.m. on Tuesday, August 10, 2004. Those present were the following:

Mr. Greenspan, Chairman  
Mr. Geithner, Vice Chairman  
Mr. Bernanke  
Ms. Bies  
Mr. Ferguson  
Mr. Gramlich  
Mr. Hoenig  
Mr. Kohn  
Ms. Minehan  
Mr. Olson  
Ms. Pianalto  
Mr. Poole

Messrs. McTeer, Moskow, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Guynn, Lacker, and Ms. Yellen, Presidents of the Federal Reserve Banks of Atlanta, Richmond, and San Francisco, respectively

Mr. Reinhart, Secretary and Economist  
Mr. Bernard, Deputy Secretary  
Ms. Smith, Assistant Secretary  
Mr. Alvarez, General Counsel  
Ms. Johnson, Economist  
Mr. Stockton, Economist

Messrs. Connors, Hakkio, Howard, Madigan, Rasche, Sniderman, Slifman, Tracy, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Messrs. Oliner and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Whitesell, Deputy Associate Director, Division of Monetary Affairs, Board of Governors

Mr. English, Assistant Director, Division of Monetary Affairs, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Mr. Nelson, Section Chief, Division of Monetary Affairs, Board of Governors

Mr. Small, Project Manager, Division of Monetary Affairs, Board of Governors

Mr. Luecke, Senior Financial Analyst, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Division of Monetary Affairs, Board of Governors

Messrs. Goodfriend and Rudebusch and Ms. Mester, Senior Vice Presidents, Federal Reserve Banks of Richmond, San Francisco, and Philadelphia, respectively

Messrs. Cunningham, Hilton, Marshall, Tootell, and Wynne, Vice Presidents, Federal Reserve Banks of Atlanta, New York, Chicago, Boston, and Dallas, respectively

Mr. Weber, Senior Research Officer, Federal Reserve Bank of Minneapolis

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CHAIRMAN GREENSPAN. Good morning, everyone. Would somebody like to move approval of the minutes of June 29 and 30?

MS. MINEHAN. So moved.

CHAIRMAN GREENSPAN. Without objection. Will somebody move the election of Scott Alvarez to serve as General Counsel until the election of a successor at the first meeting of the Committee after December 31, 2004?

MR. FERGUSON. So moved.

CHAIRMAN GREENSPAN. Is there a second?

SPEAKER(?). Second.

CHAIRMAN GREENSPAN. Without objection, so ordered. Dino Kos, you're on.

MR. KOS.<sup>1</sup> Thank you very much, Mr. Chairman. I'll be referring to the charts that Carol Low circulated a short time ago. During the intermeeting period, market participants scaled back their forecasts for U.S. economic growth—in part because of rising oil prices—and the effects were reflected in expectations of a more gently rising trajectory for short-term rates, in lower bond yields, and in lower stock prices.

The top panel graphs the three-month deposit rate in black and the three-month deposit rate three, six, and nine months forward in the dashed red lines. The three-month cash deposit rate (the black line) had been rising and continued to rise in the intermeeting period, as expectations solidified that the Committee would tighten policy at this meeting. But forward rates (the dashed red lines) traded in a range and then declined sharply on Friday, as the employment report led market participants to reassess their expectations for the pace of future tightening beyond today's meeting. The six- and nine-month forward rates have both declined about 50 basis points since late July.

The yields on two- and ten-year Treasuries, shown in the middle panels, both fell in recent weeks and especially on Friday. The two-year yield is about 40 basis points lower than when the Committee last met. The ten-year yield is about 60 basis points lower than it was in early June, and with yields at this level, the market is again discussing the possibility of a mortgage-induced wave of buying that would send yields still lower—but I'll come back to that point shortly. With the outperformance

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<sup>1</sup> The materials used by Mr. Kos are appended to this transcript (appendix 1).

of the ten-year note, the yield curve has continued to flatten, as shown in the bottom panel.

Several weeks ago bond traders were worried that the sharp rise in bond yields might set off a wave of selling by MBS investors facing extension risk. With the move down in yields those worries have reversed. The top left panel on page 2 graphs the duration of the thirty-year MBS index, which has narrowed sharply since early June and now stands at just above 3½ years. On Friday alone that index contracted by about six months. The level of MBS-related buying in recent days is hard to track, but anecdotally it has not been a prominent feature of recent trading. A further move in the MBS yield toward 4 percent could trigger hedge-related buying by accounts positioning for a new wave of refinancing.

As shown in the top right panel, the spread between MBS and Treasuries has narrowed from 55 basis points in early June to about 40 basis points. Part of that outperformance by MBS is probably due to a reach for yield in an environment where the market believed it had comfort about the pace of tightening going forward. An alternative way of looking at MBS spreads is to measure the level of the implied volatility of the embedded option. With volatilities generally low across a range of securities and instruments, the value of the short option embedded in MBS is worth less, and the MBS itself becomes worth more. That vols in MBS are low is a bit puzzling given the shortening of duration, which increases the likelihood that the options will move into the money. A side effect of this narrowing of spreads is that at least one housing GSE has already signaled that it will scale back MBS purchases, given the reduced value it perceives in current spreads.

Other credit markets performed well. Spreads on investment-grade corporate debt were little changed and appeared nonplussed by the June tightening, as shown in the middle left panel. Swap spreads were also little changed. The high-yield market—shown in the middle right panel—performed well in the aftermath of the tightening but widened more recently as the equity markets sold off. Interestingly, spreads on emerging-market bonds—where there had been perhaps the most anxiety about the tightening cycle—also narrowed slightly. Ironically, the equity markets hit their recent peaks just about the time of the Committee's last meeting and have struggled since, as shown in the bottom panel. The list of reported ailments for equities is lengthy: oil prices approaching \$45, weaker macro data, terror alerts, and earnings outlooks for the next few quarters that are far less favorable than the generally strong Q2 results. According to several equity strategists, operating earnings growth probably peaked in Q2 and is expected to decelerate in coming quarters. Given higher oil prices and higher short-term interest rates, the recent sluggishness in equity prices becomes perhaps a bit more understandable.

The picture of moderating economic outlooks and range-bound markets is visible overseas as well. The top panel on page 3 graphs the euro area three-month deposit rate and the three-month rates three, six, and nine months forward. Forward rates had generally fluctuated in a well-defined range, and the ECB was thought to be on hold

for the rest of the year. But forward rates fell in the last two weeks as the weaker U.S. data and continued sluggish data in core Europe took a toll. By late last week even the modest tightening for early next year began to be priced out.

The euro has traded mostly in a 1.20 to 1.24 range for the past three months, though it appreciated sharply on Friday after the employment report. The dollar-yen exchange rate has been similarly in a range buffeted by events on both sides of the Pacific. Through the middle of June the yen (in the middle right panel) and JGB yields (in the bottom left panel) both had upward pressure coincident with several months of strong Japanese data, improved business sentiment, a movement by some price indexes away from deflation, and generally increased optimism from investors that the long period of economic underperformance in Japan was at an end. Since mid-June, however, the value of the yen, JGB yields, and Japanese stock prices have all fallen, as investors have tempered their optimism with the latest batch of macro numbers. Those numbers have been almost uniformly weaker than investors' expectations and have caused some reassessment of how strong the Japanese recovery really is.

Let me change gears just a bit. In the past several months, quite a few traders have bemoaned the low level of volatility across a range of asset markets and the absence of perceived trading opportunities. Indeed, according to public reports by consultants who track the performance of hedge funds, the last few months have been difficult ones. Page 4 graphs the option-implied volatility since 1999 for a sampling of the major asset markets. The top panel graphs the S&P 500 volatility index; the major dollar currency pairs are in the middle panel; and two- and ten-year swaptions are shown in the bottom panel. In general, implied volatility has been toward the low end of historical averages for these assets, but a quick look at other markets not shown here suggests that volatility is low in markets as diverse as the Mexican peso and the Korean stock market.

Given the list of potential worries out there, including the upcoming election, high and rising oil prices, terrorist threats and other geopolitical issues, the onset of a tightening cycle, and the usual concerns about the durability of the recovery, one could reasonably make the case that vols are on the low side. Since options are a form of financial insurance, one explanation could be that investors are shrugging off the list of possible concerns and that there's no apparent mispricing of assets that investors want to protect against. A more intriguing explanation some have offered centers on the supply side of the volatility market and particularly on the behavior of the speculative community. This explanation posits that, with the flood of money moving into hedge funds recently, the best trade ideas have been picked over pretty well. But the pressure to make absolute returns persists; and the suggestion is that, in lieu of adding to traditional carry trades, hedge funds have been selling options to generate premium. That flow of selling is in turn putting downward pressure on volatilities in a range of markets.

As long as volatilities stay low, that is a winning strategy. If volatilities should rise, then those with short vol positions would have to rush to cover their positions. Data limitations do not allow this explanation to be validated, but the possibility of large short vol positions spread out over many institutions cannot be ruled out. Finally, note that selling volatility is in effect very similar to a traditional carry trade: both need stability of prices or rates or both in order to work. If this strategy is being used in size, then our traditional measures of the size of the carry trade would be underestimated.

Mr. Chairman, there were no foreign operations in this period. I will need a vote to approve domestic operations.

CHAIRMAN GREENSPAN. Is it possible that the presumption in the market that the federal funds rate will follow a certain pattern—prior, let's say, to the market's move last Friday after the employment report—has created an anchor to the structure of rates that, by its very nature, delimits the extent of volatility? That could be an explanation of the low volatility. The issue really gets down to whether the market believes that is exactly what is going to happen and it is taking that presumed pattern for the funds rate as a given. And they believe that because we're telling them that. That automatically will lower the volatility, which raises another obvious problem—that the system is less resilient to shocks from unexpected events. That makes me a little nervous if that is indeed the explanation.

Second, on the issue of potential endeavors to adjust duration in the mortgage market, I have the impression that the last big waves of refinancing took out a very big chunk of moderate interest coupon mortgages. While it may very well be true that, when interest rates fall or duration falls back, there would be inclinations to hedge—essentially buy fixed-rate mortgages. But if you clean out the whole base, there's nothing left. There's a very delimited amount of potential hedging activity that becomes required, except for the idiosyncratic shift in duration that has nothing to do with refinancings. This is not a convexity issue so much; it's more an endeavor to judge where there is potential for refinancing. Do we have a judgment on this?

MR. KOS. Let me answer that in two ways. First, guessing where convexity-related hedging might kick in is as much an art as it is science. What some of the dealers are talking about is that at a rate of about 4 percent we might see some kind of buying or hedging kick in. On the second aspect—

CHAIRMAN GREENSPAN. The answer is that that's likely. Obviously, if the duration is falling, investors would be getting increasingly uncomfortable. But that's not where the big change is obviously.

MR. KOS. No. On the second point of where the rate might need to be to trigger a refinancing wave, the universe is pretty limited, as you say. In the spring, when the ten-year rate got to about 3.9 percent, a good deal of refinancing occurred. So, really, the candidates for refinancing are the mortgages that were originated over the last few months at higher rates; those now might become attractive candidates for refinancing. As for how many of those there are outstanding, I don't have the data here, but I agree with you that it's probably not a huge number.

CHAIRMAN GREENSPAN. Those are the only candidates.

MR. KOS. Yes, exactly. And the number is probably not huge; it's nowhere near as large as what we saw, say, in late '02 and the spring of '03.

CHAIRMAN GREENSPAN. Home purchase originations have been high, but they haven't been high long enough to make a big difference.

MR. KOS. Again, might it have some effect? Yes. Would it have the same kind of effect that we saw in those earlier periods? Probably not.

MR. REINHART. Another way of putting it, Mr. Chairman, is that the wave of refinancing has made the distribution of mortgages more concentrated, and it isn't until rates get down to the levels they were a year or so ago that we would really hit the mass of that distribution. While it is

true that the amount of new financing in the last year hasn't been all that great, a lot of it has been in ARMs. And if rates were to decline some, we might see refinancing out of variable-rate and into fixed-rate products. So, there is some scope for refinancing.

With regard to the first point you made about the anchoring of the term structure made possible by the Committee's measured pace of policy action, I'd note—and this is something you've noted in the past—that the term structure is also anchored at the long end. The ten-year-ahead one-year-forward rate has moved in a very narrow range, and that has very powerfully lowered the volatility of the longer-term instruments that Dino showed. I think we have other manifestations of a sense of lower volatility—perhaps also bearing on risk aversion. The equity premium is in the middle of its historical range, and risk-neutral bond spreads also seem to be in their typical range. And while volatility is low, the market reaction to news has been rather high. Just think of what happened in response to the employment reports and the CPI.

CHAIRMAN GREENSPAN. That's true. You know, on the chart where Dino has those red dots in the regression, the latest observation was right on the new curve.

MR. REINHART. It really does look as if that line has rotated. So although volatilities are low, that isn't preventing the market from repricing when news comes out. That may say something about market functioning, and that would be a more favorable interpretation than the lesson you took away.

MR. KOS. Also it's a difference between historical observed volatility and the implied volatility.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. On this same subject though, Vincent, isn't it true that the distribution, derived from options, about the expectations for the fed funds path doesn't appear

to have narrowed substantially? There's still a fairly broad distribution in expectations, a fair amount of uncertainty still priced in around the path. I don't think it's true, just looking at how that's changed over the past nine months or so, that the band of uncertainty is narrower.

CHAIRMAN GREENSPAN. But the slope going forward has not changed.

VICE CHAIRMAN GEITHNER. No, that has not changed. I'm just talking about whatever concerns some people here may have about market participants displaying excessive reassurance. If market participants feel reassured, it hasn't produced substantially more confidence around that band. I think that, combined with the fact that expectations are moving around in response to the data is, again, good countervailing—

MR. KOHN. Mr. Chairman? In fact, there's a chart in the Bluebook that shows that uncertainty about near-term policy has risen over the last few months. It has not risen a lot, and the uncertainty is still pretty low, I think, but chart 1 shows that it has gone up; it hasn't gone down.

CHAIRMAN GREENSPAN. An interesting point is that the implied volatility on the S&P 500 is really startling. Whenever we see things of that nature, we say, well, what goes down must go up—the inverse law of gravity.

MR. BERNANKE. But that's much more pronounced in the sustained interest rate—

CHAIRMAN GREENSPAN. The interest rate is essentially anchoring the equity premium. What we're really saying is that there can be an element of too much good news. I think that's where we have to be careful. Further questions for Dino? Would somebody like to move approval of the Desk's transactions?

MR. FERGUSON. So moved.

CHAIRMAN GREENSPAN. Without objection, they are approved. We're now at the staff reports. Dave Wilcox and Karen Johnson.

MR. WILCOX. Thank you, Mr. Chairman. A lot has changed since the June Greenbook forecast was put to bed. Unfortunately, a lot has changed since the August Greenbook was put to bed, too. [Laughter] In particular, in the June Greenbook, we forecasted that payroll employment gains would average about 300,000 per month in the second and third quarters of this year against a backdrop of GDP growth averaging about 5 percent at an annual rate. By the end of this year, we expected that the GDP gap would have narrowed to just  $\frac{1}{2}$  percent. By the time we published the August Greenbook last week, we had tempered our growth assessment substantially and had marked up our expectation for the GDP gap at the end of this year to a full 1 percent. But we were still interpreting the June employment report essentially as a one-time hiccup and were looking for employment gains going forward only slightly smaller than we had projected in the June Greenbook. Then came last Friday's employment report, with its news of only a 32,000 advance in private nonfarm payrolls, a downward revision to June employment of 51,000, and only a 0.1 hour increase in the average workweek. Our misery over coming up short nearly 300,000 jobs was only slightly alleviated by having so much company.

So, as I said, a lot has changed. On the other hand, I should also underscore that a lot has stayed the same. Even in the wake of Friday's report, we still see overall macroeconomic conditions as likely to support a return to above-trend growth—in other words, growth that is sufficiently rapid to narrow the gap in resource utilization over the next six quarters, even if only slowly and incompletely. While we have taken quite a bit out of our forecasts for payroll employment increases in August and September, we still have those increases tracking into the neighborhood of 300,000 in the fourth quarter of this year. And in response to the employment report, we trimmed our forecast for third-quarter GDP growth only 0.6 percentage point, from 3.9 percent in the Greenbook to 3.3 percent currently, on the theory that the deficit in hours relative to our expectation informed us mainly about productivity in the current quarter rather than output.

In this connection, I should note there was one bright spot in Friday's report, namely that employment in the manufacturing sector looked, if anything, a little better than we had expected. This is particularly encouraging in light of the fact that manufacturing over the decades has been a fairly sensitive and reliable bellwether of cyclical conditions. If a pronounced cyclical softening truly were under way, we would have expected to see it in manufacturing employment, but it simply was not evident in the numbers for July.

Our outlook for inflation also falls in the category of "not much changed since the June Greenbook." The most recent CPI report was quite reassuring that the type of moderation we were looking for seems to be in train. Indeed, the news was good enough to cause us to shave our projection for core CPI inflation by a tenth both this year and next. Because the BEA penciled in a faster pace of inflation in the so-called non-market-based prices, we did not revise down our forecast for core PCE inflation in line with the core CPI. Even so, however, we have core PCE inflation slowing from  $1\frac{3}{4}$  percent this year to  $1\frac{1}{2}$  percent next year, reflecting smaller contributions

from import, energy, and other commodity prices and now a slightly greater amount of restraint from slack in resource utilization.

But while a lot is still the same, enough has changed to make it more than fair to ask, What on earth is going on? Lest I spark any hope on your part that I'm about to produce a fully satisfying explanation, let me assure you to the contrary. In point of fact, we do not claim to suddenly understand everything that has happened in the last few months; if we were that smart now, we probably would have been a little smarter last week; and if we had been that smart last week, we certainly wouldn't have hid it so well from the Committee. [Laughter] Unfortunately, the large-scale econometric model that we often consult for insight on such issues shares our incomplete understanding of the current situation. Indeed, that model, left to its own devices, would have wanted to see an additional 2 percentage points of real GDP growth in the second quarter, with much of it in PCE. Evidently, in order to provide a full accounting of the recent weakness in aggregate demand, we will have to appeal to some factor not captured by our conventional models. In light of the weakness of consumer spending, factors bearing on the household sector will have special standing. Let me list some of the possibilities.

*Hypothesis #1: Maybe it's just noise.* This hypothesis actually comes in two variants. The first variant takes the view that the data may simply be sending the wrong signal, not truly representative of macroeconomic reality. I certainly cannot rule out this variant, and indeed, we had discounted the first disappointing report on payroll employment, given the relatively encouraging recent readings on initial claims for unemployment insurance and improving household perceptions of labor market conditions. On the other hand, this variant seems less plausible in light of a second consecutive disappointing labor market report as well as the June readings on retail sales, motor vehicle sales, and industrial production, all suggesting that *something* real happened toward the end of the second quarter. A second variant of the noise hypothesis accepts the accuracy of the incoming data but questions the persistence of the softness: Maybe we are just on a temporary detour away from above-trend growth and shrinking margins of resource slack. We put some stock in this variant as well, in part because we have been impressed by a number of the other relatively encouraging indicators of demand in the third quarter, including the rebound in motor vehicle sales, the strength in orders and shipments of capital goods, and the relatively upbeat anecdotal information that we continue to receive from the ISM and other business surveys, from the Beige Book, and from our own business contacts. In addition, we continue to view the fundamental determinants of growth, especially the stance of monetary policy—and, in the near term, the stance of fiscal policy—as consistent with above-trend growth. On the other hand, we are operating in an environment of considerable uncertainty, and a key possibility that we must entertain is that something more fundamental is going on than just a temporary blip—something we don't understand and that may persist.

*Hypothesis #2: Maybe it's energy prices.* Since June, the spot price of West Texas intermediate has increased about \$6 per barrel. Moreover, prices on long-dated

futures have undergone a stunning nearly vertical takeoff in the last few weeks. Certainly the hypothesis that higher energy prices are having a much more pronounced restraining effect on activity than we had anticipated has to figure prominently on our list of possibilities. Maybe the second surge in gasoline prices in May and June caused households to reassess the outlook for energy prices and suddenly to take on board a much larger hit to their purchasing power.

To be sure, the timing of the most recent energy price spike is incriminating. But how much of the recent shortfall in aggregate activity can we really lay at its doorstep? In a memo that we delivered to the Committee just before the June meeting, we estimated that, all else being equal, the run-up in oil prices between December and June might lop  $\frac{1}{2}$  percentage point off the growth of GDP this year and a further tenth off growth next year. At that time, the spot price had risen about \$10 per barrel from its late-December level. Since June the spot price has increased another \$6 or so, suggesting that the total oil-related deduction from the growth of GDP this year might amount to about  $\frac{3}{4}$  percentage point—or roughly two-thirds of the total downward revision to our GDP projection over that time.

But while the price of oil is crucial for understanding the revision since the December Greenbook to our projection for GDP growth this year, can it account for the steep downward revision to GDP growth since the June Greenbook? Here the answer is murkier. By June, roughly two-thirds of the increase in oil prices had already occurred and so should have been taken on board in the forecast we delivered to the FOMC just before your two-day meeting. That suggests that the increase in oil prices since then might account for a downward revision to our estimate of growth this year of only about  $\frac{1}{4}$  percentage point—only a fraction of the nearly 1 percentage point revision that we have put through since the June Greenbook. On the other hand, a number of factors counsel against drawing sharp conclusions. For one, our ability to pinpoint the timing of an adjustment to higher oil prices probably is very limited. For another, we may not have sufficiently adjusted the June Greenbook projection to the oil prices then already in view. And for a third, there is little doubt that our formal econometric models omit potential channels of influence from oil to real activity, and whether we have adequately compensated for those omissions in our judgmental projection is not clear.

All that said, the coincidence between the spike in oil prices and the air pocket in spending seems too striking to write off to mere chance. So at this point, we are thinking that energy prices almost surely are *part* of the explanation; we're just not sure how *big* a part.

*Hypothesis #3: Faltering fiscal stimulus.* In the baseline projection, we have been assuming that the 2001 and 2003 tax cuts are still supporting the growth of consumer spending this year but by a gradually diminishing amount. On our assumptions, these tax cuts boosted the growth of real PCE  $\frac{3}{4}$  percentage point in the first half of this year but will lift the growth of PCE in the second half by less than  $\frac{1}{2}$  percentage point and will be essentially neutral for PCE growth in 2005. But here,

too, we have only limited ability to pinpoint the timing of adjustment, and this hypothesis suggests the possibility that we should have attributed a larger fraction of the strength in consumer spending earlier this year to short-lived tax-induced stimulus and a smaller fraction to an underlying fundamentals-based thrust.

In sum, we think these hypotheses contain some of the seeds of an explanation. Whether they constitute a full or only a partial explanation, whether we need to add to our list, or whether we need to subtract from it, all remain to be seen. But as usual, we will have to remain alert in coming months for clues that may shed further light on the nature of the recent step-down in the growth of real activity. Karen will now continue our presentation.

MS. JOHNSON. As David has discussed, it now appears that the pace of U.S. economic activity in the second and third quarters has been and likely remains somewhat less robust than we thought in June. Such a development naturally leads us to question whether we should reduce our forecast for activity abroad, as the strength of demand arising in the United States is an important factor for many regions of the global economy. However, the data we have in hand for the second quarter and the indicators we have received for activity abroad this quarter do not suggest any major revisions to our outlook, and our projection for foreign economic growth is little changed this time from that in the June Greenbook. The possibility of some spillover from the softness in U.S. activity remains a risk, however.

The view that the foreign expansion remains moderately vigorous is consistent with the fact that we were surprised on the upside by real growth of U.S. exports in the second quarter. Although we still lack monthly nominal trade data for June, stronger-than-expected exports in May and positive revisions to April have led us to project that exports of real goods and services expanded almost 12½ percent at an annual rate in the second quarter—a full 5 percentage points higher than we were forecasting in June. The nominal data show strength across most categories, particularly capital goods and industrial supplies. By destination, they reflect the second-quarter weakness in economic activity in China, with nominal exports to China plus Hong Kong declining from the first quarter. We expect that real GDP growth abroad, particularly in the major foreign industrial countries, will moderate on average over the remainder of this year and, accordingly, that real exports will decelerate some through next year.

Our story is a bit less satisfactory with respect to real imports of goods and services. Although U.S. real GDP growth for the second quarter came in below our expectations, real imports of goods and services also surprised us on the upside. A higher figure than anticipated for May and an upward revision to April imply second-quarter real import growth of about 9½ percent, about 4 percentage points above our projection in the June Greenbook. The strength in imports is widespread across categories. For the second half of this year, when we incorporate the weaker outlook for U.S. GDP growth including the information from last Friday's employment report, we now expect real import growth to slow some, to an annual rate of

9 percent, about  $\frac{3}{4}$  percentage point weaker than the figure in the current Greenbook. For 2005, we expect further deceleration in imports, to an annual growth rate a bit less than 8 percent.

With our outlook for import growth slightly diminished, we see the arithmetic contribution of net exports to real GDP growth as moving to about minus  $\frac{1}{3}$  percentage point in the second half of this year and averaging about that much in 2005. We have also shaved a bit off our projection for the current account deficit and expect it to average  $5\frac{1}{2}$  percent of GDP next year.

In addition to the less positive near-term news about the U.S. economy, the other major global economic development over the intermeeting period was a further rise in oil prices. In line with futures prices at the time, we had expected the spot price of WTI to begin moving down; and for the few days between the Greenbook release and the June FOMC meeting it did just that. However, since June 29, the spot price has moved up nearly \$9 per barrel, to close above \$44 yesterday. Our forecast for the average spot price of WTI this quarter has been revised up \$5 per barrel. Although we and the futures markets still expect the price of oil to move down over the forecast period, our projected path shows a decline of only \$4 per barrel from the current quarter to the fourth quarter of next year.

Sorting the mix of demand and supply effects is made difficult by the limited availability of very current data. OPEC raised its production target 2 million barrels a day for July and an additional 0.5 million b/d for August and has continued to produce above its announced quotas. Excluding Iraq, OPEC produced 26.9 million b/d in June, an increase of about  $1\frac{1}{2}$  million b/d from April. Much of that increase is due to Saudi Arabia and the Emirates; and other than Iraq, no OPEC member reduced production significantly over the last few months. On August 4, Saudi authorities announced that they had started production from two new fields three months ahead of schedule.

Nevertheless, there have been some negative supply factors over the intermeeting period. The most important has been the Russian government's virtual attack on Yukos. In the guise of taking steps to collect unpaid taxes, the Russian government has taken actions that seem intended to gain control of Yukos production assets. Both the rapid reversals of some decisions made in the past several weeks and the ambiguity of whether production will be disrupted in the near future have heightened uncertainty in oil markets. In Iraq, intensified violence in recent days has threatened oil exports from the southern ports on the Persian Gulf. Other sources of supply concerns have been conditions in Nigeria and Venezuela plus questions about refinery capacity and short-term refinery disruptions. These developments have combined to put upward pressure on prices and to increase volatility.

With spot prices rising even as reported supply has increased, it seems clear that strong global demand for oil has contributed importantly to the run-up in prices. In early July, the International Energy Association (IEA) revised up its estimates of

world oil consumption in the first and second quarters. For the first half of the year, world oil consumption is estimated at 81 million b/d, up 3 million from the same period last year. Global consumption is expected to rise slightly further during the second half of the year. U.S. demand for oil has risen over the past year, but much of the increase in global demand is attributable to China, where demand has moved up noticeably both last year and so far this year. IEA estimates put global production in excess of global consumption in the second quarter, implying a considerable build in inventories—more than is normal for that quarter. Such a development is only partly evident in data on OECD inventories, which have increased but remain at low levels. If IEA data are correct and no supply disruption emerges, then inventories should build further in the current quarter, with downward pressure on prices a likely result. This expectation seems to be priced, at least in part, into the futures market, which, as mentioned earlier, yet again calls for prices to move down from their current highs. The current IEA data may be misleading, however. Recent upward revisions to estimates of demand raise the possibility that demand is even stronger than now estimated. The elevated level of the entire current path of futures prices suggests that, in response to the intermeeting developments such as the Yukos events, traders have become less sanguine that production will meet or exceed consumption going forward.

With strong global demand for oil a major factor in explaining the high spot prices, the implications of the higher prices for our outlook for foreign growth are complex. For individual countries, the consequences of high global oil prices might be the same whether those prices result from supply restrictions or from demand arising elsewhere. But on average, absent significant disruption, we judge that only if global economic expansion remains strong will these prices be sustained. The data do not suggest that we are reaching a global supply constraint. Accordingly, with no major supply disruption yet occurring in oil markets or assumed in our forecast, we have adjusted the growth and inflation forecasts for individual countries, but we continue to project a sustained expansion abroad at a pace close to, but slightly below, that experienced in the first half of this year. Dave and I will be happy to answer any questions.

CHAIRMAN GREENSPAN. In evaluating the oil price impact in the United States, we tend to look at the issue from the crude price; essentially a change in the value of crude imports is viewed as a tax effect. But I wonder if there is not something a little different going on at the moment, or at least through the spring, with the very significant rise in refinery and marketing margins. That drove the gasoline price up the equivalent of an additional \$5 per barrel on the price of oil. The reason we talk in terms of net imports only is the presumption that domestic energy earnings are recycled with a propensity to spend not significantly different from consumer spending.

But that clearly has not been the case here because, despite the huge rise in refinery marketing margins during the second quarter and indeed partly through the first quarter, there has been no evident pickup in capital investment on the part of oil companies based in the United States. So in a sense, the tax so far as households are concerned—or if you want to put it this way, the propensity to save—has risen. And hence the multipliers have changed. I wonder whether that doesn't put a slightly different timing configuration on this because in the last several weeks we've observed that, as crude prices have risen, gasoline prices have come down. Essentially that gap has now been restored to where it was. If that is indeed the case, the impact of the oil effect on the third quarter is not going to parallel the actual change in the price of crude. But how much different it will be is hard to judge. Also, with respect to the question of the large inventory accumulation going on worldwide, in one sense, I guess we don't really care whether there is excess unused capacity or capacity used to increase inventories above normal. We add the two of them; it's the combination of the two that's really involved here.

MS. JOHNSON. But it matters if demand is being underestimated.

CHAIRMAN GREENSPAN. Yes. And that's where this missing barrel question comes from. It seems extraordinarily odd that after remarkably flat world consumption—at a little over 80 million barrels a day for a long period—suddenly demand has just taken off. We didn't see that during the 1990s, as I recall.

MS. JOHNSON. That is where all the anecdotes about China come in, I think. Our information about what is really going on in China is poor, at best. We know, for example, that the electricity grid in that country is not up to the task of meeting current demands, and China's economy is growing rapidly. And we know that, in response to that, many manufacturers or other producer units—or for that matter households, for all we know—have purchased generators. But

the use of numerous small generators burning kerosene or heavy fuel oil or whatever they burn is a very inefficient way to supply electricity. Their use is lowering, if you will, the average efficiency of producing electricity to support economic growth in China, perhaps in an important way.

CHAIRMAN GREENSPAN. Hasn't their oil consumption gone from 4 million to 6 million barrels a day in a couple of years, or something like that?

MS. JOHNSON. The story, though, is that to build capacity you need to stock it with an original endowment and some of that is happening.

CHAIRMAN GREENSPAN. It's the in-process inventories that are building up. If that is indeed the case, then it's not consumption.

MS. JOHNSON. Right, but we don't know. All these anecdotes are out there, but no one has real data.

CHAIRMAN GREENSPAN. In large measure they don't have room to store more oil. In fact, they're behind schedule on building their strategic reserve because they don't have storage capacity. Where is it all going? Maybe there's a big hole in the ground that they're filling in.

MR. WILCOX. Mr. Chairman, another uncertainty that I'd highlight with respect to the timing of how this plays out is that the sources of the increase in the price of oil may have a different profile recently than was the case over the first half of the year. My sense qualitatively is that strong world demand was perhaps more a front-loaded story in the first part of the year and that supply concerns maybe have emerged as an issue later.

MS. JOHNSON. Well, certainly in the intermeeting period, not only the spot price but I think the farther-out futures have reacted enormously to the Yukos story, which is not really about production today. Actually, it might be about production today because overnight the Russian authorities seized control of a big production unit of Yukos, which only added credence to the view

that the Russian government was trying to re-establish control over those assets or wanted to gain some perceived political benefit by selling them at below true value to favored purchasers.

CHAIRMAN GREENSPAN. Is there any credible scenario in which the Russians would allow that oil production to decline at these prices?

MS. JOHNSON. It is hard to imagine that they would allow that to happen for any period of time, but I'm sufficiently skeptical about their business competence that I wouldn't assume that they can do all this shifting and achieve their political aims and not disrupt supply temporarily. But there is certainly no incentive for them to cut back production.

CHAIRMAN GREENSPAN. I think they have an incentive to make believe they are cutting back to get the price up but to keep selling the oil.

MS. JOHNSON. To exert some leverage over the rest of the oil producers or for a host of reasons.

CHAIRMAN GREENSPAN. President Moskow.

MR. WILCOX. May I just finish the thought? The consequences for U.S. activity could be quite different, depending on the mix of supply and demand factors. If that mix changed over the first and second halves of the year, it could add to the uncertainty about the timing that you were highlighting in your comment, Mr. Chairman.

CHAIRMAN GREENSPAN. I think that's a good point to make.

MR. MOSKOW. I also wanted to follow on this discussion about oil prices. It seems that every time I've looked at this futures market for oil—and I don't look at it on a regular basis—when the spot price is in the 30s or 40s, the price of oil is always shown as coming down in the future. Now it is projected to be coming down, but not by very much—only about \$4 or \$5 a barrel—by the end of 2005. I was just wondering if you view this market now as typical. Does it look the way

it always does, or has it changed because of terrorism in Russia and all the other things that are going on? And does it change at different levels, as the level of the spot price varies?

MS. JOHNSON. Well, you're asking someone whose expertise in this matter is more limited than I wish it were. It's normal for this curve to display a downward slope, but it's not always the case that it does. There have been times when the front portion of the futures curve has sloped up; that would not be considered an unprecedented event by any means. Oil is costly to store. So that figures into the value of buying now to meet a future demand versus buying it in the future.

I've expressed to the people who study this market in great detail my frustration about the fact that this curve slopes down all the time and rides up to the actual spot price. I've asked why it is that the people in the futures market always continue to believe that the oil price is going to start coming down "tomorrow" despite six months' worth of evidence that that hasn't happened. Those who analyze the oil market confront me with this supply and demand story: They say that as best they—and I assume all the people trading in the real markets—can tell, the data they have available suggest that the current supply exceeds consumption. Now, we may someday learn that these data were just wholly inaccurate, and that may explain what was misleading all of us. But the people trading in the futures markets have the same data, and they, too, believe that current production exceeds consumption by a comfortable margin. So they are always expecting that supply–demand imbalance to show through to the oil prices.

Now, these people have become a bit battle scarred. And the curve, at least to my eyes, has flattened a little from some of its previous shapes. I think that's because, even though the production data, taken literally, suggest that production exceeds global consumption, people are pricing in either some expectation of a Russian foul-up of one sort or another, or a terrorist event, or

the Venezuelan situation getting ugly, or something of that sort. So either they are attaching some probability to supply being below global capacity in the future, or they have come to believe that the data aren't entirely reliable. Something, however, has caused them to bid up the far futures more than a straight reading of what the market's knowledge of demand and supply would create but not so much as to take away completely this notion that inventories must be building somewhat and that it's going to show through to prices at some point.

CHAIRMAN GREENSPAN. There's an interesting history here. Incidentally, there have been significant periods of a so-called contango curve.

MS. JOHNSON. Pickup, yes.

CHAIRMAN GREENSPAN. In 1985, for example, the curve sloped up. Something unusual happened about three to four years ago. Prior to then, the far distant six- to seven-year futures huddled around \$18 to \$20 a barrel, which appeared to be the general judgment of what the marginal supply price was in the long term outside of OPEC. And the six- to seven-year futures price held in a very narrow range as the spot price went up and down very sharply. Indeed, the spot price went well below \$18 a barrel for a while, and at that point the longer-term futures were still \$18 to \$20 a barrel.

Sometime just a few years ago the long-term futures price started to move up, and it's now at \$30 a barrel. The argument essentially being made by some—and I think it has some validity—is that, prior to this recent period, the general world price was determined among commercial buyers and sellers, or producers and users of oil, largely by the level of world inventories. Starting first with the Intifada and the problems emerging gradually in the Middle East, the general assumption that OPEC crude supply was secure began to deteriorate, and the situation has obviously gotten significantly worse. What has happened is that a whole group of noncommercial interests, seeing

the geopolitical arbitrage, have decided that they want inventories of oil and that the best way to get those inventories is to buy long-term futures. Now, the only people who can sell to noncommercial interests are commercial interests. So those who own all the liquid barrels by definition have been selling net claims to noncommercial interests, thereby reducing their supply. Or another way of looking at it is that they are increasing the demand versus supply.

The way to pick up these data is in the CFTC's net position on the NYMEX. The noncommercial interest is now net long; it has been long for some time and has been rising for quite a while. It has gone up and down recently, but it still is net long. That means, in effect, that we have a whole new set of buyers out there, but without changes occurring in the underlying general level of the inventories.

If this is the case, questions are being raised about what would happen if 4 or 5 million barrels a day got knocked out of the Saudi crude supply because of some uprising or something like that. That premium is in the market, and I think it's a very interesting question as to how rapidly it will disappear short of enough inventories actually being accumulated worldwide to satisfy the needs of both commercial interests and the net speculative interests of those who have a sense of geopolitical risk that they want to hedge. At some point, the latter group is going to get enough oil, at which time they will stop their hedge buying. And at that point I think the price will come down.

MS. JOHNSON. Or it will come down just with the passage of time. If among those purchasers are people who envision some reason for using oil, they don't need to buy in the spot market because they will have already bought forward. If they are just speculating, as it gets close to the time when they're going to get delivery of this oil that they don't really want, they're going to sell it spot. Ultimately, it's only the people who actually consume the oil who can sustain the price.

That's what makes this global demand story have to be the context in which this trading is taking place.

CHAIRMAN GREENSPAN. I think the best way of visualizing it is this: When what I'd call the OPEC premium rises, the underlying ex-ante demand to hold inventories worldwide rises. If supply exceeds consumption, inventories will rise to the level at which that demand is sated, and at some point it will be sated. The only issue is, Where is that number?

MS. JOHNSON. And somewhere out there are alternative energy sources—tar sands, other kinds of materials, or whatever. They often used to be cited as putting a limit on how high the oil price could be.

CHAIRMAN GREENSPAN. If oil goes to \$80 a barrel you'll be surprised at what—

MS. JOHNSON. Even ethanol looks good.

CHAIRMAN GREENSPAN. I guess the staff's estimates are that the supply of oil is close to unitary elasticity over the long run in the United States and that it's very inelastic in the short run. But with enough time, we just price ourselves out of the market.

MS. JOHNSON. But if one imagines that the citizens of India and China, which would total about 3 billion people, raise their per capita consumption of energy to, say, half the average of that in industrial countries—

CHAIRMAN GREENSPAN. That's a very important point.

MS. JOHNSON. That would result in an altogether different picture of the long-term energy supply–demand balance in the world. And the effect of that has to feed back at some point. Now, if that were really what was driving everything, one might think that investment in the energy sector would just be taking off, and I don't see that either. And part of it is because this miserable curve slopes down all the time. In the short run it always seems as if the price of oil is going to fall

any day and, therefore, that such investment is not really going to pay off. There's a certain inconsistency in that, I realize.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. I don't want to prolong this discussion too much. The Chairman made the point I wanted to make—that how the marginal cost of energy is determined has moved from a secure low-risk environment to a very high-risk environment. One of the things I think we're seeing with the news regarding Yukos and other developments that are moving the market around is that many people in the market—in a situation where I believe supply and demand are actually pretty closely in balance now—are looking to Russia or Venezuela or other places as the marginal producers and no longer to Saudi Arabia, for example. The latter always has a lower cost of production but a higher risk profile. Is that a possible explanation?

MS. JOHNSON. It's certainly true that the role of Saudi Arabia as the swing producer was a deliberate and explicit policy adopted by the Saudis. They would restrict production or they would expand production in an attempt to set a sort of horizontal supply curve for oil at a specified price. That has just broken down. It has broken down for a variety of reasons. What I think we're seeing is the transition to some new structural pattern in global oil and related sources of energy that hasn't really settled out yet. And it's not clear exactly how it is going to settle out.

CHAIRMAN GREENSPAN. Further questions for our colleagues? If not, who would like to start the Committee discussion? President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. The two big questions facing us are whether the recent soft patch in economic activity is temporary and to what degree underlying inflation has picked up. On the first question, we get a sense from our Seventh District contacts that their business is good but apparently not robust enough to generate substantial hiring. We have received

mixed reports on employment. Our contacts at temporary-help firms say that they are placing temporary workers across a wide range of industries. In addition, they are increasing their placement of workers in permanent jobs. Some of our more general business contacts even report scattered labor shortages in a few specialized areas. Nevertheless, few say that they are permanently increasing their head counts even though business is pretty good.

In terms of spending, some sectors that had weak activity in June showed improvement in July. In particular, retailers told us that they saw something of a bounceback; and looking ahead, merchants sound quite bullish about the upcoming holiday season and are planning to build their inventories accordingly. As you know, light vehicle sales also bounced back in July. So far, reports suggest that sales in the first week of August continued to be strong. One manufacturer even told us that they are looking for sales in the month to be about 18½ million units.

CHAIRMAN GREENSPAN. Excuse me—was that for light vehicle or total sales?

MR. MOSKOW. Light. Automakers will need a good August and September to clear dealer lots of their '04 model year cars; otherwise, they will need to reduce production schedules for their '05 models. Other sectors never really experienced much of a slowdown in June, and their activity remains strong. This pattern has been evident in new orders for construction, agricultural, mining, and some IT equipment as well as in demand for advertising. Air travel has continued to move higher during the summer, with bookings solid for the fall. In contrast, information we have heard about IT services suggests weakness.

On the second question, the outlook for inflation, our District contacts continue to talk about cost pressures, but there are few indications of pass-through to prices so far. There's not much news on wages, but rising health care costs remain a major concern. And costs for some material inputs, notably construction materials, steel, and energy remain elevated. Our contacts still expect these

costs to ease, but it is taking longer than they had anticipated. Similarly, the supply chain bottlenecks that I discussed last time are also taking longer to resolve. Capacity constraints are particularly severe in transportation, and there are concerns that these could persist and cause substantial problems during the peak fall shipping season. As I noted, despite all these cost pressures, we're hearing only limited reports of price increases downstream.

Turning to the national outlook, we think that the economy's soft patch is temporary. The July employment report makes us nervous but doesn't change this assessment. Assuming that the recent payroll data are not spurious, what risks do they suggest? One possibility is that we're back to an environment similar to last year, when uncertainty held back hiring even though growth continued. Of course, there are reasons to think that uncertainty might have risen; we've just talked about the oil prices, terrorist threats, and so on. However, our business contacts have not talked explicitly about increased uncertainty holding back their hiring, and we know that indications of spending showed activity picking up again in July. Moreover, we think the fundamentals continue to be strong: Real income growth has been maintained despite the weak employment growth and higher energy prices, we still have strong underlying productivity growth, and monetary policy remains very accommodative. We are concerned about the persistently high oil prices. Their movements seem to be driven largely by geopolitical concerns, as Karen was discussing, so oil is a wild card both for growth and for inflation. We all know that these sorts of supply shocks make for difficult policy decisions. Still, with regard to prices, the data suggest that core inflation remains well contained. So at this time continuing to remove policy accommodation at a measured pace seems appropriate.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Thank you, Mr. Chairman. Almost all my contacts said that they had nothing new to report; essentially the story was the same as last time. I would mention two things that are perhaps a little different. My Wal-Mart contact said that the pace of sales in August has definitely downshifted. The Wal-Mart public story is an expectation of 2 to 4 percent growth in same-store sales, but apparently internal estimates are much closer to 2 percent than 4 percent. Wal-Mart officials were very reluctant to revise their estimates publicly to 1 to 3 percent, which is what they might otherwise do, because they thought that might give too pessimistic a picture. They are expecting some pickup in September and October, more to the 3 to 5 percent growth range.

Several of my contacts spoke about the rail congestion. There seems to be a real bottleneck in U.S. railroads these days, and the congestion has actually reduced capacity. Because the average train speed is down, that means that the capacity to move freight is down. My contacts expect the problem to continue through this year because, of course, as we move into the fall more goods are moving on the rails. So the situation really won't get straightened out until the early part of next year.

I think the staff outlook for the economy makes good sense; I agree that interpreting current developments as temporary is right. As for the employment report, the back-of-the-envelope calculations I've done on the seasonal factors suggest that, if we had used last year's seasonals, the number of jobs created in July would have been 80,000 higher than reported. I'll just throw that out as something to think about. Obviously, that doesn't fundamentally change the picture, but if we had gotten 110,000 new jobs instead of 32,000, the picture would have looked a little different. That's all I want to report. Thank you.

CHAIRMAN GREENSPAN. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. The pace of economic activity in the Fourth District, although sound, has been slower this summer than in late winter and early spring. My conversations with business persons throughout the District have reinforced my view that the region is still poised for solid economic growth for the remainder of this year, although at a pace somewhat slower than I had expected in the spring. During the past few months, I had thought that current economic conditions in my District were lagging those in the rest of the country. However, national economic statistics and the Beige Book reports indicate that the recent slowdown is more broadly based than I had thought. Going into our June meeting, the business people I talked to were expressing a growing sense of confidence in the economy, and at that point I thought that was helping to dispel some of the lingering caution about restraining capital investment and hiring plans. But those expressions of confidence have dissipated somewhat, and this change in attitude came before the July employment report.

The balance of comments from the people I talk to has shifted from enthusiasm to renewed concerns about the pace of the expansion. And this shift in attitude is not confined to those businesses that are under stress. I had a conversation with an executive from a global manufacturing company, whose growth in orders is matching the peak levels of the late 1990s. But despite his strong order book, even this individual confided that this pace of business would not last. When I pressed him about the reasons he was saying that, he couldn't cite any specific reasons. He just had a gut feeling that it could not last.

So this return of greater caution about the outlook is reinforcing the desire on the part of firms to expand production and to meet the growing orders via productivity gains. And as I have been reporting for some time, companies indicate that they intend to remain disciplined about their hiring. Wage pressures don't appear to be restraining the hiring, but high and rising health care

costs are. I've been accustomed to hearing complaints about the rise in health care costs whenever inflation is mentioned, but lately business persons have raised this issue in the context of their hiring strategies; from their perspective, labor is becoming more expensive. And companies that have already enjoyed significant productivity gains continue to assert that there are plenty of opportunities to become even more efficient. That might be a factor in the weak demand for labor that we are seeing in the data.

I find the inflation picture somewhat complicated. When we talk about inflation as the twelve-month change in the market-based core PCE price index, we're many steps removed from the experiences that most people have in their local grocery stores and at the gas pumps. Even my directors, who have become accustomed to talking about the nuances of inflation measurement, have been very concerned about the steady stream of big headline CPI numbers this year. They point out that people might begin to lose their patience with the idea that these large increases are transitory. Furthermore, a number of my directors and other District contacts tell me that some of the previous spikes in commodity and energy prices have not been fully priced into final goods. Some of my contacts in the manufacturing sector say that they still have contracts, especially with steel producers; but those contracts will be expiring in the fall, so we might see some additional pass-through later on this year.

Fortunately, despite these reports, I have not been hearing anything that would lead me to believe that substantial inflationary pressures are building across a wide range of final goods prices. It still seems to me that the Greenbook inflation projection is the most likely outcome. Headline inflation rates should start to moderate in the next several quarters, but I do see some risks in the inflation outlook. Over the course of this year, I have thought that dominant forces in the economy were producing a higher equilibrium real rate of interest and that monetary policy needed to adjust

to that situation in a timely fashion. I still believe that this is so and that we should continue to move the fed funds rate toward a more neutral stance. At the same time, I was concerned at our last meeting that we might be falling behind the curve. But after listening to the growing caution that I am hearing from my business contacts and after last Friday's employment report, I'm wondering whether the economy hasn't shifted to a somewhat slower growth track than I expected six weeks ago. If that is the case, then today's fed funds rate would be closer to neutral as well. I do not think, however, that it is so much closer that I would not want to move today. Recent developments obviously highlight the difficulties that we face in communicating our future actions, and I'd like to have maximum flexibility with respect to policy going forward. I would want the flexibility to gauge the timing of future actions as economic circumstances warrant. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. Thank you, Mr. Chairman. In contrast to the nation and my next door neighbor, economic activity in the Third District is expanding a little faster now than it was at the beginning of the year. Job growth in our region had been lagging that in the nation, but it has strengthened in recent months, at least through June, which is the latest month for which we have state employment numbers. Payrolls in our three states grew at a 0.7 percent rate in the second quarter, after being flat in the first quarter. Each of the states had employment gains, and these gains were widespread across industries. Job growth in the region was strongest in New Jersey, especially the southern part of the state. Payroll employment is now above its pre-recession levels in New Jersey. It remains 1 percent below the pre-recession level in Delaware and 1¼ percent below in Pennsylvania. The tri-state unemployment rate edged down to 5.1 percent in the second quarter, and we continue to receive reports that some firms are having difficulty finding qualified workers.

Responses to special questions about wages in our business outlook survey of manufacturers and our South Jersey business survey—which includes manufacturers, retailers, and service firms—suggest that growing demand for workers is leading to wage increases. Thirty-eight percent of the BOS respondents and 50 percent of the South Jersey respondents said that they have raised wages to retain or attract workers in the past three months. Among those who reported raising wages, the modal increase was in the 2 to 4 percent range, and these survey results seem consistent with the BLS data indicating that wages and salaries and total worker compensation in our region have been rising at a faster pace than in the nation as a whole.

The other sectors in our District continue to perform well. Although retail sales moderated a bit in June, our contacts attribute the slower sales to unusually cool weather, and they reported some rebound in July. In addition, retailers in our region expect strong back-to-school sales, although we don't have hard data on whether that is happening yet. Commercial real estate markets in the region remain soft. Residential construction activity remains at a high level, although its growth eased back a bit in June. Manufacturing activity in the region continues to expand and has outperformed the nation in recent months. Our business outlook survey index of general activity rose to 36.1 in July, up from 28.9 in June, and the index has been in positive territory for the last fourteen months. The more forward-looking indexes on new orders and shipments improved considerably in July, and a historically large share of respondents also reported increases in unfilled orders and delivery times. And some firms commented that they were reaching capacity. Service-sector activity in the region has strengthened, with payroll employment in that sector expanding briskly in the past few months. Over the first half of the year, professional and business service employment grew the fastest among the service-sector industries in our region.

We continue to get readings of rising prices in our region, although the pace of increase is slightly less than a few months ago. The prices-paid index in our manufacturing survey declined in the past two months but remains at a high level. Firms seem better able to pass on some of the price increases to their customers. The prices-received index in our survey rose to a fifteen-year high in July. In summary, the outlook in our region is positive. Our staff's leading indicators of economic activity are signaling steady growth in all three states in our District over the next three quarters, and our business contacts appear optimistic.

On the national level, real GDP growth slowed somewhat more than expected in the second quarter. First-quarter growth, as reported here, was revised up at the same time. Most of the second-quarter deceleration reflected sharply lower growth in consumer spending, which was not totally unexpected, but the size of the decline was greater than most had anticipated. At the same time, most of the new monthly data have been coming in on the positive side. Auto sales rebounded in July. Housing remains strong, and new orders for nondefense capital goods continue to trend up. So at least until Friday, I tended to agree with the Greenbook's earlier interpretation of the second quarter as a temporary lull in activity, and I expected GDP growth to be somewhat faster in the third quarter than in the second.

Then the July employment report was released last Friday. We know what the job gains were, so I will skip over the details. Still, a number of other indicators of the report showed improvement in the labor market. The unemployment rate fell a tenth to 5.5 percent, and the household employment number grew by an implausibly large 629,000. I am still puzzled by that latter number. The labor force participation rate moved up. And the average and median duration of unemployment moved down significantly; the weekly hours worked held about steady. In addition, we note that initial claims for unemployment insurance have been trending down, and

many business surveys indicate that firms are hiring and expect to continue hiring. Given the weight of all this evidence, I continue to expect a rebound in employment growth in the coming months, and I'll be watching these data carefully.

At our last meeting, Governor Bernanke reminded us of Larry Meyer's rules of forecasting. I found myself thinking about those rules over the past few weeks, as the weaker-than-expected output was announced and, more recently, last Friday when the employment data were released. I asked myself, Is it time to apply rule 2 and make a fundamentally new forecast? My answer is, "No, at least not yet." High oil prices do pose a risk to the economy, not only to growth but also to inflation and inflation expectations. That said, I note that the core PCE has moderated in recent months.

In my view, the FOMC should remain on the course we began at our last meeting and should continue to remove policy accommodation at a measured pace. Despite the recent softness in output and in the employment data, my outlook for the economy has not changed enough to merit our taking a pause. I think the risk of maintaining the current degree of policy accommodation outweighs the risk of a continued transition to a more neutral stance. The real fed funds rate will remain negative even after we move today, and thus monetary policy will remain expansionary as we continue to help the economy out of this temporary lull. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. Like many others coming into this meeting, I have been trying to understand why some of the wind seems to have gone out of the sails of consumer spending and employment. Consumer spending has been such an important anchor both during the recession and during the recovery, as other sectors one by one healed and began to contribute to the expansion. Of course, we've been counting on some solid employment growth,

and the new income and spending power that comes with it will offset the individual spending that will wane at the margin as we remove our extraordinary policy accommodation. Like others, I think I am comfortable concluding that some combination of the sapping effect of high energy prices, heightened concerns about a terrorist act associated with our election season, the Olympics, or some other target of opportunity served to chill consumers. However, more-recent data such as auto sales, which have already been cited by several people, suggest that consumer spending has not dried up.

Employment developments are also interesting, to say the least. I take some comfort in looking back at the monthly data of the boom period of the 1990s, which remind us of the volatility of monthly employment data. It is not all that unusual to have two or even three not so strong months within a period of strong employment growth. At the same time, I certainly think the mood among the business leaders I talk with about new hiring is still one of squeezing out the last ounce from existing staff and of achieving the maximum amount of staff cuts possible from technology, mergers, and acquisitions. That mindset seems to argue for the kind of more-moderate, but still good, job growth reflected in the staff's latest estimates. Perhaps more importantly, I do not see any obvious loss of momentum in other sectors. By most measures, manufacturing seems to be holding its gains. Homebuilding and sales are holding up remarkably well. Investment spending continues at a good pace. Exports are growing nicely. We're even seeing some first signs of a stirring in commercial construction, or at least some planning and financing for future construction.

As always, I've tried to ascertain how our regional data and anecdotal reports either confirm or contradict the broader national developments. Since our last meeting, my regional insight suggests that there is still broad and sustained underlying strength in the expansion. Reports from our region's tourist destinations are quite upbeat. Air travel is strong. We're seeing some new

commercial construction cranes on the horizon and are hearing of projects in the pipeline. So on the output side, I remain reasonably confident and encouraged that a good expansion continues to be in train. Even 3½ percent GDP growth estimates sound pretty good, unless one had come to believe that we really had returned to the high spots of the 1990s.

On the inflation front, I agree that we do not seem to face any near-term threat of measurably higher and uncomfortable inflation rates. At the same time, I am less willing than some to conclude that most of the price pressures we have seen and talked about here at our meetings are going to turn out to be transitory. While many of the increases associated with higher oil and other commodity prices should be reversed in time, I continue to be struck by the degree to which we still are getting cost pass-throughs. We're being reminded that, in those areas where demand is strong and building, price increases are sticking. When one decomposes the contributions, positive and negative, to core PCE prices over recent quarters, it is clear that, were it not for the downward drag of core goods prices, the increase in core service prices would feel more threatening.

Our regional data and insights continue to remind me that there are continuing price pressures and more pricing power than we have seen in some time. Since the last meeting, several trucking companies have told us that they are about to announce 5 to 6 percent price increases. A senior UPS executive director reported that there is very little pushback in fuel surcharges. Truck driver wages are on the rise, and several Southeast trucking companies say that they have raised starting pay twice already in 2004 and are expecting another increase in the current quarter. A national temporary employment service company reports that they have raised their rates for the first time in a couple of years. So I am not as ready as some to move inflation concerns completely to the back burner.

Putting all this together and looking ahead just a bit to the policy discussion, I would conclude that, while the error bands of confidence intervals around our forecasts are probably now wider, given recent developments the risks now seem more honestly balanced than they were at the time of our last meeting. I think we can and should stay on the path of removing our extraordinary policy accommodation. Thinking in Olympic terms, we should continue to cut back on the dosage of our performance-enhancing policy drug! [Laughter] And finally, not knowing how much opportunity we will have to discuss our post-meeting statement, I would suggest—while I am still among those who wish to have a fundamental discussion of our communication practices, perhaps at our January meeting—that today is not a good time to be tinkering again with that statement. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, conditions in our District reflect much of what I've heard so far around the table today, but I think a couple of developments are worth noting. Our labor markets have shown further signs of improvement, actually. Employment rose in June for the fourth straight month. Major hiring announcements stayed at a high level in June and July, and local labor market surveys indicated an increase in hiring plans for the rest of this year. Layoff announcements did turn up a little in July but remained lower than the hiring announcements and were largely confined to our telecommunications firms, which are continuing to cut staff. Manufacturing activity in our region continued to grow solidly in July. Production and new orders rose further, and employment and hiring continued to expand according to all our survey results. Firms remain highly optimistic about future activity and still plan moderate increases in hiring and capital spending. Consumer spending is flat in our area, as others have noted for their regions. Energy activity continued to expand in response obviously to the price environment. As before,

though, some of the individuals we talked with on the producer side say that they are being constrained to some degree by shortages of labor and equipment and difficulty in obtaining permits for some of the drilling activities they would like to pursue.

I would say that on the national level the question we are struggling with is whether this recent news is a pause or a more systemic issue. I am unable to tell that for sure, but I'm inclined to suggest that it's a pause and not something fundamental. But given the uncertainties around energy, I think continued high or rising energy prices pose some risks on that front. One thing that does concern me is that, based on my conversations with some of our business people—even those in the manufacturing sector—the news that has come out recently has surprised them as well. So they are rethinking how they are looking at the situation going forward, and that is a bit of an issue for us. But I do believe that the economy is fundamentally strong, and I think our current monetary policy stance is consistent with that moving forward, as is fiscal policy as well. So I think that the lull is temporary and that we will see activity continue to increase through the remainder of this year.

Thank you.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you, Mr. Chairman. New England seems to be experiencing what we hope is the same summer lull as the rest of the country. The job market didn't improve from May to June, and some companies—most notably in the technology and consumer product sectors—saw weaker demand than expected. As one director put it, “technology spending stopped to take a breath in June and July.” Still, overall the regional economy continues to expand and in many areas, such as heavy equipment, paper and packaging, and medical products, growth remains strong. Consumer and business confidence remain at high levels, and coincident indicators of economic activity remain positive. High energy prices, expectations of higher interest rates, not to

mention the security surrounding the Democratic National Convention, certainly took a bite out of local demand, but we think it is a temporary one. So far, no one expects that bite out of demand to derail what continues to appear to be a self-sustaining recovery.

Similarly, incoming data on the national economy have been soft lately, especially when compared with the growth rates needed to eat into excess capacity in a significant way over the next year to year and a half. Indeed, the baseline Greenbook forecast, and ours in Boston as well, sees excess capacity remaining at the end of 2005, and this was expected prior to the surprise in the employment data of last Friday and the latest revision of the Greenbook. Despite the relative softness, at least compared with forecasts, the absolute state of the economy doesn't seem that bad. Housing markets are still strong. Indeed, as the Greenbook points out, recent readings on business spending and profits remain positive—not ebullient, to be sure, but solid. In particular, I, too, find the increase in spending on nonresidential structures and the recent implied increases in manufacturing activity and manufacturing employment interesting. It is too early to draw a conclusion on this, I suppose, but it may be that businesses took the June falloff in consumption with a grain of salt in July. Perhaps they aren't hiring until things become clearer, but they may also be relatively comfortable in spending as they and the rest of us continue to believe that this lull in activity will be short lived.

In that regard, outside of the payroll jobs data, the consumer does seem well equipped to continue spending. Readings on overall confidence are good, employment claims are down, hours worked are up a little, layoffs are down, and surveys both of consumer attitudes toward the labor market and of business hiring plans are positive. In addition, for whatever reason, jobs as measured by the household survey have surged lately, and the unemployment rate recently dropped a bit. It is hard to know exactly how to figure in the household survey or what to make of it. It may, in fact, be

noise. As Dave suggested, one of the reasons for not knowing how to interpret the latest report is that it may be noise, but my interpretation is that at least this is positive noise. [Laughter]

The big question going forward is whether the lull in activity, as most prominently represented in the payroll employment picture and data on June consumption, will be transient or whether it portends a much slower pace of economic growth going forward. Higher oil and gasoline prices, higher steel and copper costs, the rising cost of health care, and required contributions to underfunded retirement plans probably have been the proximate causes of the decline in consumption and the moderation in wage growth and in business spending. Some of these factors have begun to ease off. Certainly, the three-month rates of annual change in overall measures of inflation, whether for the CPI or PCE, have subsided from their first-quarter surge. Core measures have also pulled back to a pace of less than 2 percent—plus or minus depending on the series one is looking at.

Strong global demand and geopolitical uncertainty in Russia and the Middle East have driven up oil and other commodity costs, especially metals. And oil prices seem more likely than not to stay high. But productivity growth remains solid, business profits are healthy, and markups are higher than trend. Fiscal policy remains stimulative, and monetary policy accommodation is significant as well. So it is not a bad bet that growth at a pace of 3½ percent or better will resume and that inflation pressures will continue to ebb. It's the bet the Greenbook is making, and it's the bet we are making in Boston as well, though I should say that our GDP forecast, particularly as it relates to consumption in the near term, is a bit less optimistic than the Greenbook's. There are risks to that forecast, to be sure, but I still tend to see the risks as relatively balanced.

Is the current level of policy accommodation correct for a U.S. economy growing at trend, give or take a bit? As I noted earlier, both the Greenbook and our Boston forecast expect excess

capacity to remain by the end of 2005, and if anything, the anticipated level of excess capacity has gotten larger since our last meeting. But a great deal of uncertainty surrounds that calculation. Relatively less uncertainty surrounds the current stance of policy. Real federal funds rates are negative and will remain so even if we make a move of 25 basis points today. Highly accommodative policy was appropriate as we faced the recession and the low probability event of serious deflation. In my view, such accommodation is no longer appropriate for the U.S. economy even as it experiences what I assume is a hiccup on an otherwise solid growth path. Thus, I believe that, absent signs of a major prolonged slowdown, we should continue to adjust policy gradually upward. I'm not sure where we need to pause along the way or even whether such a pause might be helpful, but I don't think that's the question at this meeting.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. There has been little change in the District economy recently; that is, a broad-based expansion is under way and is continuing. Labor demand appears to be strengthening. Manufacturing has been a particularly bright spot recently, especially for larger firms that operate and sell internationally. We have seen the anticipated improvement in tourism activity. In talking to contacts in the hospitality industry, including some people who operate a chain of upscale, upper-end hotels around the country, they say they've seen steady improvement throughout the year. Finally, I would reiterate Bill Poole's comment about bottlenecks in the railroad industry and, for that matter, in other forms of transportation as well. That is something that was called to my attention some time ago, and it apparently persists today.

As far as the national economy is concerned, there are two issues on my mind. One is energy prices. The other is equity prices, although my concern about equity prices is offset at least to a degree by the decline in intermediate- and longer-term interest rates that we've seen. But the

primary question to me is, have recent developments fundamentally altered the economic outlook? Or put another way, would I disagree substantially with the Greenbook forecast? My tentative answer to that question is, no, I wouldn't. I'm fairly comfortable with the fundamental outlook expressed there, and for reasons that have already been cited here—the expansionary stance of both monetary and fiscal policies, the persistence of a significant advance in productivity, and improving economies around the world. All those factors continue to give me some confidence that the U.S. economy will continue to perform reasonably well.

Let me make one further comment about energy prices. At least according to the anecdotes that I've been getting, higher oil and gasoline prices seem to be having mostly what I would call “second-order” effects. That is, nobody is saying that they have laid off people or ended a second shift or something like that because of higher energy prices. The effects are all showing up in either explicit surcharges or, more implicitly, through pass-throughs. So whatever effects those higher prices are having are coming through those channels.

CHAIRMAN GREENSPAN. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. The Twelfth District economy has expanded at a solid pace in recent months. After a pause in June and early July, District consumers appear to have opened their wallets again—spending more on entertainment, travel, and a range of services. Even with higher fuel prices, District tourist destinations are well booked, and industry contacts say that they are having a good summer. Housing markets remain vibrant, but higher materials costs and anticipated interest rate increases have begun to temper the pace of new building.

On the business side, firms remain focused on containing costs and improving efficiency. Contacts note that almost no decision gets made without asking how it will affect productivity over the next five years or so. After the long decline in the District's IT sector, signs of improvement are

emerging. Production capacity is up, employees are working more hours, and firms have begun to add jobs. In some areas, demand for employees with technical training or experience has risen so sharply that it is outstripping supply, and businesses are responding by poaching from other firms, producing sizable wage payments in these IT-focused areas. So far, however, rapid productivity growth has held unit labor costs in check. Improved labor markets and rising wages have begun to attract job seekers and, after falling for several years, labor force participation has picked up somewhat in many District states and the fraction of the unemployed that were either new or returning entrants has increased.

Turning to the national outlook, disappointing data for June and the July employment report have caused us to revise down our real GDP forecast and have elevated our concern about downside risks to the outlook. Recent weakness in personal consumption expenditures is particularly worrisome. Growth in consumer spending was probably affected by weather, a temporary dip in auto sales that was reversed in July, and of course, higher energy prices. But as David mentioned, standard model estimates suggest that the quantitative impact of the oil price hikes we have seen this year should have depressed PCE by only a few tenths of a percent. So, in my view we should therefore consider the possibility, as David did, that other factors may also be at work. For example, the level of mortgage refinancings in recent months has plummeted, and conceivably—I have no evidence to this effect, but conceivably—equity withdrawals for cash-out refinancings had provided a greater boost to spending than was commonly recognized.

In addition, the saving rate is at a very low level. Consumers kept up their spending throughout the recession and recovery despite only modest income growth. With interest rates rising and equity prices declining notably since our last meeting, households might try to get their finances in order and bring the saving rate up to more normal levels. An alternative scenario in the

Greenbook suggests that an increase in the saving rate to 1 percentage point higher than the baseline would lower real GDP growth about a percentage point, to a sluggish 2½ percent in 2005—and it would be even less given the revised staff forecast. With consumer confidence strong and disposable income likely growing at a solid rate, even with weak job growth in July, I agree that the odds are good that the economy will soon rebound from the late spring and early summer doldrums. I don't think we should overreact to a brief lull, but the downside risk to the Committee's forecast of sustainable growth has clearly risen, in my opinion.

Turning to inflation, I've been encouraged by data from May and June showing a moderation of core consumer inflation. Recent ECI readings also reveal that wage and salary growth remains very well contained, although overall compensation growth has been elevated by large increases in health and pension benefits. On balance, these developments support the view that the recent run-up in inflation mainly reflects temporary factors. I continue to see large risks to the inflation outlook on both the upside and downside. Of course, we have been, as you have, continually surprised by increases in oil prices over the past year or so; and the possibility that this pattern will continue represents an upside risk for inflation at the same time that it represents a downside risk to demand. But a downside risk for inflation is the exceptionally high markup of goods prices over unit labor costs. And if the adjustment to a more normal markup is shared in a typical way by goods prices and labor compensation, this could depress inflation by a noticeable amount.

Looking forward to our policy discussion, the recent moderation in core consumer inflation coupled with doubts about the robustness of the expansion suggests to me that we should tighten the stance of policy at this meeting in line with market expectations of a 25 basis point increase in the federal funds rate. Going forward, my hope is that we will follow a wait-and-see approach,

adjusting the pace at which policy accommodation is removed to the ebb and flow of data concerning both labor markets and inflation developments. In view of the recent weakness in the economic data and the downgrading of the forecast, I would favor modifying the final sentence in our statement to indicate that we intend to fulfill our obligations to promote both price stability and sustainable growth.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. For the national economy, the underlying pace of growth seems to have moderated since our last meeting, as have inflation risks. On the assumption that monetary policy follows roughly the path now priced into markets, we foresee a somewhat softer path for the expansion than we had in June, with growth moving back to a pace modestly above potential—perhaps under 4 percent—for the balance of '04 and for '05 and the core PCE staying just under 2 percent. We view the risks as roughly balanced around this trajectory but with a bit more uncertainty and caution about the growth outlook and somewhat more comfort with the inflation outlook.

We are broadly comfortable with the Greenbook forecast. Relative to that forecast and with a slightly steeper path to monetary policy, we expect somewhat less growth in consumption than the Greenbook, somewhat stronger productivity growth, somewhat weaker employment growth, and somewhat less moderation in the core PCE, but these differences are relatively small. We believe the fundamentals of the expansion remain favorable even if the breadth of the recent deceleration in spending is somewhat troubling. The productivity numbers seem to be holding up quite well. Income growth is reasonably strong. Corporate balance sheets, profit margins, and cash flow are very strong. These factors combined with reasonably good confidence numbers among consumers and establishments suggest that growth should move back to a level somewhat above potential. Our

forthcoming Empire survey, for what it's worth, shows a significant moderation in the overall outlook—a greater moderation than we've seen in the national surveys of business confidence. But the overall numbers are still at a level that suggests continued expansion, and the six-months-ahead numbers we look at fell by much less than those relating to the present.

The risks to this outlook lie principally in the possibility of a shock that causes a very large sustained further rise in energy prices, a substantial terrorist event in the United States, or some abrupt change in the willingness of nonresidents to acquire U.S. assets. But even without those events, we could still see a new wave of caution induced by the threat of their occurrence, by concern that demand may stay soft and employment growth remain weak and erratic, or by a further rise in the saving rate. In a sense, our forecast requires a modest leap of faith that households and enterprises will look through this latest softness and the increased uncertainty.

On inflation, with monetary policy moving back to neutrality, we're reasonably confident that the core PCE will stay just below 2 percent. The recent moderation in the data helps support this view, but we haven't had that much confirmation of a downward trend yet. This follows what had been a sustained large, unanticipated, and still-not-well-understood rise of underlying inflation that should give us a bit of humility as we go forward. If monetary policy were not to continue to adjust toward a more neutral position, then we would face the risk that the elevation in near-term inflation expectations would feed through to a higher rate of underlying inflation. Back to our Empire survey for a moment, it may be worth noting that the respondents report some moderation in cost pressures and pricing power and a more substantial reduction in expected pricing power six months out.

I think it is encouraging that market expectations about the path of the fed funds rate are proving so responsive to the data and that, despite concerns that we've provided too much assurance

about that path, there's a fair amount of uncertainty reflected in those prices in terms of how far and how fast we will move. I think it is hard to argue with the path now priced in. Or to put it differently, given the thicker fog surrounding the near-term outlook, I don't think we know enough to want to use our statement today to try to induce a change to that path either by steepening or softening it. Nor should we do anything to alter the presumption that now exists that we'll be moving toward neutrality at an appropriate pace and that the pace of that adjustment will depend on the data and what they do to our forecast. Thank you.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. At our last meeting, many, myself included, were concerned about possible upside risks to inflation, even if policy tightened at a measured pace. Although the staff forecast for core inflation hasn't changed materially, I see a number of reasons to be less concerned about those upside risks now, despite the further increase in energy prices. Incoming data have shown core inflation to be restrained and labor compensation growth to be fairly flat, despite rising pension contributions and an expected catch-up with past productivity increases. This should increase our confidence in the analysis that suggests that core price increases earlier this year were significantly influenced by one-time factors and that appreciable slack has been present in labor and product markets. Inflation expectations have been well behaved. Short-term expectations and the Michigan survey have moved lower. The long-end survey measures of inflation expectations have been virtually constant. The long-run inflation compensation in the TIPS market is 50 basis points below its peak in early May, which would seem to provide a little extra assurance that, even if rising energy prices boost short-term inflation expectations again, long-term expectations are likely to remain firmly anchored. And, finally, activity has been softer, and

the output gap has turned out to be larger than anticipated, and that should continue to restrain inflation in the future.

Smoothing through the quarterly revisions, final sales rose 1½ percentage points less rapidly in the first half of the year than was estimated in the forecast in late June. The weakening apparently was greatest near the end of the period; investment as well as consumption turned out to grow noticeably less rapidly in the second quarter than had been anticipated. The July employment report raised enough questions about the trajectory in the third quarter to cause the staff to write down third-quarter growth even further. If the staff is right, the output gap will have closed very little, if at all, since late last year, given the still strong productivity growth.

Obviously, rising oil and energy prices are playing an important role both through the direct import tax effects on domestic personal incomes and profits and by elevating uncertainty about the future. Those effects are probably being accentuated by the persistence of the higher prices and the substantial upward revisions to prices in more-distant months. With inflation expectations anchored, rising oil prices seem likely to affect output more than inflation. That is the interpretation that the financial markets have put on recent oil price increases, and those increases have tended to be associated with decreases in intermediate-term interest rates. Nonetheless, it is hard to believe that oil prices account for all of the shortfall in output relative to expectations and the apparent inability of fiscal and financial stimulus to close the output gap.

And it's not just that models or rules of thumbs don't see that large an impact. We don't see the sorts of developments, such as the drop in consumer confidence we saw in 1990, that in the past have been associated with an outsized response to oil prices. Moreover, foreign economies don't seem to have been affected very much. I recognize that many foreign economies are less energy-dependent than we are. Some of them are energy exporters. But if higher energy prices are

damping demand, I still would expect to see some imprint on industrial economies, and estimates of their growth in the first half of the year have been marked up over the intermeeting period.

Perhaps the upward movement in interest rates this spring is having an outsized but temporary effect, coming as it did after such a long period of very low rates, which encouraged people to accelerate spending. And uncertainty certainly has risen on many fronts in addition to the energy market. It will be interesting to get a read this Friday in the Michigan survey as to whether terrorism alerts and difficult domestic and international political situations are taking their toll on sentiment. But interest rates have come down. Higher levels of uncertainty about energy prices ought to be primarily affecting the level of output, not so much its growth rate, unless oil prices or uncertainty rise further.

I think the greatest downside risk to growth is the behavior of the household sector, and the worrisome signal there is the jump in the saving rate in the second quarter. A gentle upward incline in this rate would be consistent with good economic performance in the near term as well as over the longer run, as investment and government spending strengthen. But we are unlikely to have enough strength in those other sectors if saving rises more rapidly. The risk is that households are undertaking a more fundamental evaluation of the long-run prospects for wealth and income, reacting not only to higher interest rates, energy prices, and uncertainty but also to persistent sluggishness in real wages and salaries, a less optimistic view of future equity prices, and shortfalls and defaults in defined-benefit plans.

Still, I see a rapid increase in saving as a downside risk rather than the most likely outcome. Interest rates remain low, and credit is readily available. This should support expansion above the growth rate of potential. Households and businesses still seem confident enough to respond fairly normally to these stimuli, with businesses having postponed enough investment in recent years to

fill in for a modest flattening in the upward trajectory of household spending. And as many of you have pointed out, a number of pieces of recent data—initial claims, household perceptions of improving labor market conditions, and various surveys—are consistent with continued good growth in jobs and output. If I had a better understanding of the recent shortfall, however, I'd have a lot more confidence that stronger growth will resume once energy prices level out.

On balance, I think the incoming data have left us with less upward risk on inflation, a larger output gap that is probably closing more slowly than most of us anticipated, more uncertainty, and puzzles about the strength of the expansion. Moreover, those uncertainties are skewed at least a little in the direction of the possibility that the gap might close even more gradually, if at all, in the present configuration of expected Federal Reserve action. And that is due only in part to the possibility of further increases in energy prices. All this probably is not enough to deflect us from the course of removing policy accommodation. But it would argue for an even more measured approach and a great deal of caution and flexibility in how we think about and characterize in announcements and speeches what we might do in the future—a subject I assume we'll come back to in the next part of the meeting. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. I normally speak after the break, so I was intending to pass out a chart.<sup>2</sup> Let me quickly do that. Just when it looked as though everything was on track for a gradual tightening of policy, an energy shock seems to have hit the economy. How does this change our calculus? We've talked a lot about oil this morning already, so let me just hit the high points. The spot price for oil has risen from about \$25 a barrel throughout 2002 to \$45 a barrel now. The far futures price, a better indicator of whether this price shock is likely to be temporary or permanent, has risen from its long-term average of about \$20 a barrel throughout 2002

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<sup>2</sup> The materials used by Mr. Gramlich are appended to this transcript (appendix 2).

to about \$35 a barrel now. Similar upward movements are occurring in the markets for natural gas and gasoline. Supply margins in these markets have tightened, and markets are now much more susceptible to further shocks in price increases. All things together, this looks pretty much like a permanent energy price shock.

The first question is, how serious are these energy price shocks to the macroeconomy? That's what the chart I'm distributing addresses. An analytical approach that focuses on reduced form correlations, an example of which is being passed around, shows pretty strong effects. Since 1975, every upward spike in real oil prices has been followed by a recession, though some of the recessions seem far deeper than could be accounted for by oil prices alone and there does not seem to be a symmetrical effect for downward price shocks. But this result is still pretty impressive since most of the oil price shocks have been temporary, at least as measured by the difference between the spot price and far futures price. Presumably, the macroeconomic impact would have been even more powerful for permanent shocks.

The staff has analyzed both temporary and permanent shocks through structural model simulations. These are alluded to briefly in the Greenbook this time and in more depth in the French, Horvath, and Mauskopf memo we got for the last meeting. If we take the far futures price difference of about \$15 a barrel as our measure of the permanent price shock, the implicit energy tax comes to about \$75 billion—definitely not chicken feed. The model works in empirically estimated effects of price changes and lags on consumers and businesses and finds effects on next year's unemployment rate of more than  $\frac{1}{2}$  percentage point—say, for an unemployment rate of  $5\frac{1}{2}$  to 6 percent. The effect on core inflation is  $\frac{1}{3}$  percentage point and, in what seems to me to be a separate calculation, that on long-run aggregate supply is about  $1\frac{1}{2}$  percent. It is often said that the

reduced form effects that I have circulated are bigger than the model effects, and that may be so; it's hard to compare exactly, but even these model effects look pretty big to me.

If there are extra-model effects, that should be considered. One obvious place to look is consumer confidence. Historically there does seem to be a slight correlation between oil price spikes and drops in consumer confidence. But whatever the past correlation, this chain of events does not seem to be occurring now. Consumer confidence is bumping along but hasn't really dropped since the oil market worsened. Another place to look is in business scrapping of capital equipment that has been made uneconomic by the assumed permanently higher prices of energy. Understanding this chain of events involves a highly detailed analysis of capital use, which I'm not going to give today. But if such a factor were important, it could have either positive or negative effects on investment demand but presumably negative effects on employment demand. Possibly that is occurring now but, frankly, if this factor were important, I think we'd hear more about it anecdotally than we are. There are other such uncertainties. One that was mentioned by the Chairman this morning relates to the recycling point. But I tentatively conclude that none of these extra-model effects seems as though it is particularly important right now.

Assuming then that the model does have the basic story right, what should the Fed do in general about a permanent energy price shock? To me, the optimal strategy—again, laid out in the staff memo for last time—is to keep the real funds rate constant. Keeping the real funds rate constant implies permitting the nominal funds rate to rise on the order of 40 basis points for a \$15 permanent oil shock. Compared with the base case of no shock, unemployment would temporarily increase approximately  $\frac{1}{2}$  point and core inflation about the same amount, for about a year, but both would then revert to their initial values. There doesn't seem to be much way to improve on this outcome. A supply shock will force us to accept some combination of temporarily

higher unemployment and temporarily higher core inflation. But there is a way to make this outcome dramatically worse, and that is by not letting the funds rate rise, letting inflationary expectations become unmoored, and permitting the relative price shock to be translated into permanently higher inflation. This is the outcome we should try to avoid at all costs.

Turning to our present situation, before we got into this energy price shock, the plan was to let the nominal funds rate rise gradually to equilibrium as the expansion proceeded. With the added bumpiness of an energy price shock factored in, there is much market commentary that we might have to change our approach to policy at this meeting or the next. While conceding that the expansion path is likely to be much bumpier than we thought because of the energy price shock, it is interesting to note that the policy strategy for dealing with energy price shocks is essentially the same as before. We should let the nominal funds rate rise now, with or without energy price shocks.

Of course, nothing is certain in life, and there is a scenario under which we ought to suspend our policy of gradual rises in rates. This would be the case if two conditions were fulfilled—if the present weakness in aggregate demand were really persistent and if it were in fact due to some cause other than energy. The obvious candidate for fulfilling those two conditions that we've heard about this morning is the consumer saving rate, though there would be others. However, at this point, I don't consider either possibility very likely, but obviously we have to keep our eyes open. So even though a lot has changed in the last month, I'm still in favor of going with the program. We are likely to be in the midst of an energy price shock. These shocks are not pretty, and they are likely to worsen economic outcomes over the next year or two, but they don't change what I think we ought to be doing—certainly at this meeting. Thank you.

CHAIRMAN GREENSPAN. Let's break for coffee and return in ten or fifteen minutes.

[Coffee break]

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. Thank you, Mr. Chairman. The economy appears to have lost some momentum, and unfortunately the recent slowdown may be more pronounced than can be accounted for by the rise in energy prices alone. For example, we would normally expect households confronted with higher energy prices to reduce their saving in order to smooth the impact of higher energy costs on non-energy consumption. Instead, the household saving rate has recently risen, hinting perhaps at a more urgently felt need to rebuild wealth in the face of a flat or declining stock market. Likewise, firms appear to be investing less and, especially, hiring less than would seem justified by their order backlogs, raising the possibility that the excessive business caution we saw last year is surfacing again. Some support for the business caution hypothesis is provided by the estimates of second-quarter productivity growth released this morning—2.9 percent in the nonforeign business sector and 7.5 percent in manufacturing—which account for a large part of second-quarter growth and suggest that firms are still focused on cutting costs.

Overall, our plan to tighten at a measured pace looks pretty good right now. The gradualist approach moves us predictably toward rate neutrality yet leaves the economy some breathing space and gives us some time to observe economic developments. One complication for policy, noted by President Pianalto, has been the divergence this year between core and headline measures of inflation. The Committee tends to focus on the core measures on the grounds that they are better indicators of the underlying inflation trend and more likely to influence long-term inflation expectations. But Committee members have also warned that headline inflation should not be ignored.

I would like to report very briefly on some work I've done with the staff that attempts to address the relative importance of core and headline inflation measures as influences on long-term

inflation expectations. We did two exercises. First, staff member Jeremy Rudd and I ran a battery of regressions relating alternative measures of expected inflation to current and lagged measures of actual inflation. The idea was to determine which measures of inflation have the greatest influence on inflation expectations. Our measures of long-term inflation expectations included the ten-year inflation forecast from a survey of professional forecasters and the median expectation of inflation five to ten years out in the Michigan survey of consumers. For comparison, we also looked at the short-term year-ahead inflation expectations from the Michigan survey. Inflation measures whose predictive power was tested included the total CPI, core CPI, total PCE inflation, core PCE inflation, and market-based core PCE inflation. We examined a variety of specifications and sample periods and used both quarterly and monthly data, as available. Many details aside, the regression analysis suggests that core measures of inflation do seem to be better predictors of long-term inflation expectations, as anticipated, although their advantage is not in all cases large. Moreover, in the regression analysis, core inflation measures outperformed not only headline inflation as predictors but also real-side indicators such as industrial production and payroll employment. In contrast, as expected, short-term inflation expectations are much better predicted by headline inflation rather than by core inflation.

The second exercise, done with Refet Gurkaynak and Andrew Levin, used high-frequency data from financial markets. Here we measured long-term inflation expectations by TIPS inflation compensation at the five-to-ten-year horizon, and we investigated how the market-based measure responds within the day to various types of macroeconomic news announcements. Consistent with both the regression results and market lore, we found again that news about core inflation has a considerably greater effect on long-horizon inflation compensation than does news about headline inflation. Indeed, the noncore part of inflation has a zero or even slightly negative effect on long-

horizon inflation compensation. Overall, these results provide support for our focus on core inflation measures in making monetary policy.

In contrast to the regression analysis, the TIPS event study also found that long-horizon inflation compensation responds strongly not only to inflation indicators but also to real variables, such as the advance GDP release, the ISM survey, and new home sales—a result consistent with recent work by Gurkaynak, Sack, and Swanson at the Board and by Kliesen and Schmid of the St. Louis Federal Reserve Bank. Further analysis of all these results would be worthwhile. However, at face value, the finding that long-horizon inflation expectations appear to respond to short-term economic developments, whether real or nominal, raises the possibility that long-term inflation expectations in the United States are not as firmly anchored as we would like. This brings me back to the current situation.

If inflation expectations are, indeed, imperfectly anchored, it is very important that we continue to demonstrate in word and deed our commitment to price stability. I earlier indicated my support for continuing with our plan to tighten at a measured pace. If the economy continues to weaken, we may find ourselves considering whether slowing or stopping this process is warranted. I think we would be best advised not to deviate materially from our current plan unless we are fully persuaded that both core inflation and long-term inflation expectations are well contained. Thank you.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. The economy of the Eleventh District continues to improve, although the pause that was apparent at the national level in June was also evident there. We also saw some deceleration of price pressures that had built up. We still expect the Texas economy to expand over the course of the year, and our regional economists are forecasting job growth of around 1.8 percent,

which is slightly below normal and much below normal for a recovery period. We've seen steady employment growth in Texas since last December. However, the employment gains have been unevenly distributed, and job growth did slow over the second quarter. Since the upturn began, education and health services have seen the biggest employment gains. Our manufacturing sector continues to shed jobs, and there has been no job growth in construction. Construction employment fell in June, which was the wettest month on record in Texas.

As we've discussed this morning, the persistence of high energy costs is an increasing concern for many industries. And along the lines that Jack mentioned, in the trucking industry we, too, have seen a few signs that higher energy prices are being passed on. Not so with airlines, however. They are being squeezed by higher fuel costs offsetting the boost they've been getting from solid summer traffic. American Airlines recently tried to recoup some of its higher fuel costs with a modest fare increase but had to quickly withdraw it. The protracted bankruptcies of some airlines appear to be delaying a much-needed restructuring of the industry. High energy prices have not prompted any increase in drilling activity in Texas, primarily because of limited in-state prospects. Texas, I think, may have been sucked dry by now. Nor has there been any increase in international drilling, as most of the oil prospects at present seem to be concentrated in politically unstable regions—and also probably because of Karen's awful downward-sloping futures!

[Laughter]

Finally, the Mexican economy continues to show signs of strong growth. Exports to the United States have risen as the recovery here gained momentum, but domestic consumption also has been growing, helped by strong remittances from the United States.

On the national economy, I was also surprised by last Friday's employment report, and it makes me wonder about the duration of the soft patch. I do take some comfort from the huge gains

of the household survey number—even if it is positive noise—from accelerating activity in the economies of many of our trading partners, and from a continuation of the recent strength in business spending on capital equipment. That said, what is going on in energy markets merits close attention. All the attention that has been given to the recent volatility of spot prices may have distracted us from the more worrisome long-term developments in the futures markets, with disturbing implications for the possible duration of higher energy prices.

Higher oil prices have already pushed headline inflation numbers to uncomfortable levels and are having a detrimental effect on consumer spending. The recent string of disappointing employment reports notwithstanding, monetary policy remains very accommodative. Inflation risks remain skewed toward the upside in my opinion, and a modest increase in the funds rate today seems warranted.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. At the last meeting, I expressed some concerns about the uncertain outlook, and unfortunately, most of the incoming data have verified those concerns. At this meeting, I think President Moskow opened by asking the right two questions. The first is, Are we witnessing an emergence of another period of subpar growth that is likely to last for several quarters, or are we watching a soft patch that in all probability has come to an end or will do so very soon? While obviously the answer is not clear, for this purpose I am willing to buy into the most recent staff forecast. However, I must admit that I put much greater weight on the downside risks than on the upside risks. I do that even knowing that some recent anecdotal data, some survey data, and even some high-frequency data suggest that perhaps things are turning.

So why do I put greater emphasis on the downside risks, even against the new downwardly revised forecast? There are three reasons. First, I find that for this entire year the trend in all of the forecasts we look at—both those of the staff and those in the private sector—has been downward. Forecasters have been confronting a great deal of fog and uncertainty and almost every time have been forced to revise down their forecasts. If one goes back to the January Greenbook, the most negative scenario called for growth in the first half of 2004 of 4.6 percent, and it ended up being almost a full percentage point below that, at around 3.8 percent. The staff was, I think, close to correct at the beginning of the year on the employment call, projecting an unemployment rate of 5.7 percent at the end of the first half, which was not far off. And as we know, the inflation forecast at that time called for a core PCE inflation rate of about 1 percent, but we've had a number of upside surprises there. On balance, I'd say that this has been a very, very difficult economy to call, and since even some of the more negative outcomes have turned out to have understated the downside, I think we still need to put some weight on the downside risks.

The second reason is that, in periods when we have a great deal of uncertainty and difficulty in forecasting activity, it's obviously instructive to look at business signals and at financial market and credit conditions, which are all meant to be forward-looking. On balance, I think that businesses, and consequently markets, are indicating at least some skepticism regarding the consensus forecast of a pickup that may be emerging now or will emerge shortly.

Looking backward, as we saw in the staff presentation here at the Board on Monday, second-quarter earnings per share did continue to rise, which should be taken as good news—and it was. However, the bad news is that momentum in earnings growth appears to be slowing. In the second quarter, the difference in positive surprises and negative surprises was markedly smaller than for earlier quarters. In addition, a number of high-profile firms provided a more cautious

outlook for further earnings growth than investors had been expecting. Taking all of this on board, financial markets have become less positioned for—and I think show less foreshadowing of—robust growth. Every major domestic stock market index has been down from year-end 2003 and from the last FOMC meeting. The drops range from about 5¼ percent to 12½ percent.

Financing conditions suggest some softness as well. As one example, real interest rates for Moody's A-rated corporate bonds have fallen, depending on how we adjust them, either to 2.96 percent if we use the Michigan five- to ten-year survey or to about 3.5 percent if we use the Philadelphia Fed's ten-year survey. In either case, those are numbers that we have not seen for about a decade or so. This suggests to me that there is clearly slack demand for financing, as companies' investment needs have not kept pace with productivity-enhanced cash flow.

It is true on the other side that C&I lending has moved up somewhat, but that seems to be due as much to easier terms and conditions as it does to rising financing needs for accounts receivable, inventories, and capital expenditures. Reflecting the weakness in consumer spending, the growth of consumer credit also slowed noticeably in June, although I've received some anecdotal evidence from major credit card issuers that suggests that at least revolving credit demand may have increased at a more rapid pace in July. On balance, I see all of these financial market and credit indicators, while they are not free from contradiction, as suggestive of some uncertainty that a near-term rebound is in train and perhaps more consistent with a very extended soft patch—in fact, a longer period of subpar growth.

The final reason I have for siding more strongly with the downside scenarios is that I find the conditions required for a return to more sustained near-term and longer-term growth not yet convincingly in place. First, the forecasted turnaround in the near-term outlook is driven heavily by the expectation that sales of automobiles will support higher production in that key industry, and I

noted with interest President Moskow's commentary on the August motor vehicle numbers.

However, President Moskow also pointed out that auto manufacturers have an inventory overhang, and it is quite possible that incentive-induced sales may not achieve their goals.

The staff also points to brisk IP outside motor vehicles to support the baseline forecast. But I worry that, as has been the case for capacity utilization, much of that increase in IP will be in so-called upstream industries that reflect a few special situations and not a broad-gauged pickup that is consistent with a fully self-reinforcing positive dynamic in the economy. The inventory situation and earnings guidance from major high-tech firms suggest that some caution is indeed in order for industries other than automobiles.

The longer-term outlook depends on an increase in the pace of consumer spending, which may well be challenged by a number of factors. First, the energy prices that consumers face may not decline, as assumed in the baseline. Second, we may see weaker wealth creation, as the rise both in housing prices and in equity wealth slow. Third, and this has been addressed by others, we may have a return to a more normal saving rate. And fourth, the effects of prior tax cuts are waning. The longer-term outlook for business investment must also be questioned, to a degree, by the lack of a very strong response to date to the partial-expensing tax provisions, which are due to expire at year-end. The ongoing increases in productivity gains and the state of the financing gap both suggest that perhaps businesses are still finding opportunities to use more fully the current stock of capital, without investing heavily in new capital. All these downside concerns are only intensified by the interaction effects among rapidly rising energy prices, heightened geopolitical turmoil, and cautious consumer and business behavior. We have seen often in the past that the macroeconomic implications of that combination can be outside the smooth adjustment process that is built into the models.

I realize that I have spent most of my time discussing growth. Obviously, we have a dual mandate in which keeping inflation low and stable is certainly the major component. The upside risk to inflationary pressures that we feared earlier does seem to be abating. All scenarios in the Greenbook recognize this and point to inflation that remains subdued; and at least in my reading, market-based indicators of inflation and inflation expectations corroborate that expectation. With economic slack if anything slightly increased and with unit labor costs and productivity still performing well, it seems to me that a significant upside outbreak of inflation from this level is unlikely. Finally, we also recognize that the impact of oil prices has tended to be somewhat asymmetric. So I think those prices are unlikely to be the major source of an inflationary impact as opposed to an output impact.

The implications of all this for policy it seems to me are pretty clear. If a so-called measured move was proper at the last meeting, it is certainly proper at this meeting. As to future meetings, I know only that markets expect us to pause at some point. It is far too early to assume that outcome, but I think it is also far too early to reject the possibility of a pause going forward. Obviously, the data will help us to decide. Given the uncertainties that we confront, I hope that at this time we do not limit, either implicitly or explicitly, our options.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. Thank you, Mr. Chairman. In preparation for today's meeting, I surveyed a major regional bank and two large community banks, one in the Southeast and one in the Midwest. Based on those conversations, I have both some general and some specific observations. In general, commercial lending activity has increased, although the reason for the borrowing is more for acquisition purposes than for capital purchases. When I probed as to why increased orders would not have generated increased demand for capital loans, one of the reasons suggested was that, with

excess capacity, the incremental sales dollar goes largely to the bottom line and as a result improves both profitability and debt service capacity. That, along with the existing liquidity of corporate America, has meant that the demand for C&I loans hasn't been as strong as we would see in other environments.

Demand for mortgages to purchase both new and existing housing remains strong, but one notable change in the mortgage market is that there is a flattening of demand for home equity loans, which I think dovetails with what President Yellen suggested. Given the ease with which homeowners can acquire a home equity loan and the minimal cost and obligation that goes with the acquisition, the implication is that the availability of home equity as collateral may have reached a saturation point— particularly the increase in home equity resulting from rising valuations. The other across-the-board change I noted is that banks apparently are cutting back on, or at least looking much more carefully at, their commercial real estate lending.

In a more specific sense, one of the more interesting anecdotes came from a banker who is also a director of a major gasoline retailer. He said that this company had found that a price of \$1.80 per gallon at the pump is the point at which they see a flattening, if not a cutback, in gasoline purchases. In their judgment, \$1.80 is the point at which the price of gasoline triggers changes in driving patterns. For their purposes, of course, they are looking at the elasticity of demand, so they don't go beyond that. For our purposes, the question might be whether or not that change would also suggest a broader change in consumer behavior. But it was interesting that that was the cut line they found in their analysis of same store sales. I'm starting to hear for the first time a little concern among my banking contacts about what may be an over-extension in consumer lending. There was heightened concern about the number of bankruptcies and just a slight indication that there might be some softness in that market.

Overall, I would say that banking activity does not reflect the current softness that we've seen elsewhere. On the other hand, the information I've received over the two years that I've been doing this kind of survey has often lagged the indicators we get from other sources. That would suggest some limits in sight on the consumer side that may in turn point to the need for caution, but it would not seem to suggest that we should alter our monetary policy direction at this point. Thank you.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. Many of you have already talked about this soft patch that we're going through, and as I prepared my notes for today my main concern was how long this soft patch is actually going to last. As President Guynn said earlier, the consumer really has kept the economy moving through this overall business expansion, in terms of getting it back on the right path. One of the questions today is what is happening to the consumer. I am concerned about the soft retail sales we've seen in the last few months, though obviously the slowing is from elevated levels. I'm hearing, too, that it's not just energy prices that are a concern for consumers but food prices as well. A couple of retailers mentioned to me that when the price of a gallon of milk and a gallon of gas both go up, it raises questions about how much people have left for discretionary spending. If those prices start to moderate and level off, then we may have reached the end of this soft spot.

Home sales, which probably are the most bullish indicator of real intentions, continue to be very strong, though. While such sales have plateaued, they've done so at record levels. The purchase of a home is clearly a long-term commitment, and the housing market indicates a degree of optimism that isn't evident in the retail sales sector. So based on that, I feel more optimistic that the economy will get through this soft patch in the next few months.

One other comment that I heard from some retailers was a reminder to me to be careful when I look at year-over-year comparisons of sales in the third quarter. Last year, consumers were getting tax rebate checks, and they went out and spent those funds, especially on lower-end types of retail sales. So we need to be mindful of that unusual boost to sales a year ago.

The jobs numbers, as many of you have indicated already, clearly created a lot of confusion when they came out on Friday. That made two very weak employment reports in a row, especially with the revisions factored in. As we've always said, these data can be volatile. And if we look at other indicators of jobs, we have different signals. As was discussed in our Board meeting yesterday, initial claims are fairly stable, which suggests that it's new jobs that are not being created. But the household survey points to more optimism on the part of households because it indicated substantial growth in employment; and usually if the labor force is growing, that's another signal of consumer optimism. So, again, we have mixed information about what is happening in the employment data.

The inflation numbers, I find, also have moderated in the last couple of months from the very rapid rates that we saw in the first half, whether we look at the total inflation or the core inflation measures that we use. So both of these factors—the likely reasons for the soft patch and the moderation of inflation—make me want to stay with the “measured pace” language that we have in our latest statement. And given that the data since our last meeting have clearly provided some surprises, I want to reemphasize that our commitment to removing policy accommodation at a measured pace is dependent on the data as they evolve.

CHAIRMAN GREENSPAN. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. The Fifth District economy expanded at a somewhat slower pace in July, as manufacturing and retail sales softened but services strengthened.

In manufacturing, our diffusion index for shipments, just released today, fell last month but remains in positive territory. The manufacturing employment index was also in the positive range, consistent with anecdotal reports from the Carolinas, where much of our manufacturing industry is concentrated. Job losses due to plant closings in textiles and furniture continue but have been offset recently by job gains at new plants and plant expansions in other manufacturing industries. Our new orders index for manufacturing picked up in July, though, suggesting some improvement ahead. And manufacturers tell us that prices paid accelerated in July; they complained about price increases for raw materials, particularly for steel and copper.

Turning to our index for service firms, revenue was strongly positive again in July, indicating continued strong growth in the Fifth District service sector in recent weeks. In contrast, our survey indicated that retail sales revenue slowed, and many store managers are reporting slack sales. A senior officer at a large bank in our District reported strong demand for credit in the midlevel corporate market and positive consumer credit quality trends. Contacts in the D.C. area noted that the commercial real estate market here has gone from “good to white hot.” An executive at a national media company reported extremely strong TV ad revenues for the first half of the year, even excluding political advertising, which is very strong this year. Last week, though, she reported a pause in forward momentum for the third quarter, but she said that the industry remains optimistic for the fourth quarter.

Turning to the national economy, I was disappointed, too, by the weakness in the payroll employment reports. Those data, along with the softness in consumer spending, have elevated my concern about the downside risks going forward. At this point, though, I share the Greenbook’s view that these negative developments are likely to be reversed before too long, for reasons that many people have gone into around the table and I won’t repeat here. Moreover, the change in the

corporate profit numbers due to the annual NIPA revisions suggests that markups are less elevated than we once thought. As a result, the risk of disinflation due to a more-rapid-than-expected decline in markups now seems lower.

Furthermore, the moderation in core inflation measures of late suggests a diminished risk of a protracted rise in inflation. Consumer inflation has continued to increase, given higher food and energy prices, but the fact that inflation expectations have fallen somewhat since the spring, in spite of the rise in overall inflation, supports the view that inflation will remain contained. All in all, I think there's good reason to believe that the economy will work through this difficult period and move toward a balanced expansion in product and labor markets with stable prices.

On the whole, I still think the most dangerous risk that we've faced so far this year has been the apprehension of financial markets about the Fed's falling behind in raising the funds rate. I believe the Committee was correct last spring to keep financial markets calm by communicating its intentions to lift the funds rate target this year and next. That message showed markets that we recognized the risk of inflation and that we would give appropriate priority to price stability. I also think that our follow-through in raising the funds rate in June and in indicating our intention to take another step today were necessary to sustain the credibility of that commitment.

It was always possible that we might receive some disappointing data after we began raising the funds rate, and it turned out we did, but I think we should follow through today for several reasons. First, the market has already eased policy for us by reducing the speed at which it expects us to raise the funds rate. Second, not to follow through would risk undermining the credibility against inflation we have been working to maintain. Given that credibility, we can always ease policy quickly and substantially—should the weakness in the economy develop into something

more serious—by signaling our intention to draw out the pace of the funds rate increase. Thank you.

CHAIRMAN GREENSPAN. Let's turn now to Brian Madigan.

MR. MADIGAN.<sup>3</sup> Thank you, Mr. Chairman. I'll be referring to the material that was passed out at the break labeled "Material for FOMC Briefing on Monetary Policy Alternatives." As shown in the top panels of exhibit 1, the incoming indications of softer-than-expected economic growth—especially Friday's employment report—have had a pronounced effect on financial markets. Over the intermeeting period, the yield on nominal ten-year Treasuries, the solid black line in the left-hand panel, dropped nearly 45 basis points, to about 4.4 percent—its lowest level since early spring. At the same time, equity prices, shown in the right-hand panel, dove sharply lower, as investors reacted to the sluggish data, rising energy prices, and corporate guidance suggesting a less robust outlook for earnings. The S&P 500 index fell more than 6 percent, while the Nasdaq plunged nearly 13 percent. But with business balance sheets perceived as mostly being in excellent condition, credit spreads on investment-grade issues were about unchanged; and yields on such securities, the dotted red line in the top left panel, declined virtually point for point with those on Treasury bonds. Spreads on speculative-grade issues (not shown) widened a little but stayed relatively narrow.

As is evident in the middle left-hand panel, the signs of persistent sluggishness in the economy prompted a significant tilt down in market expectations for the path of the federal funds rate. The blue line, showing quotes for last night's close, suggests that market participants now fully subscribe to the FOMC's view that policy can be tightened at a measured pace. Investors apparently have come to believe that two years will elapse before the funds rate will reach 3½ percent. In other words, they now see you moving ¼ point at roughly every other meeting. At the same time, though, market participants appear to have read your recent policy announcements, as well as your public statements that the flagging in growth is likely to be temporary, as implying that policy *will* be tightened another notch at this meeting. As illustrated by the blue bars in the chart to the right, options on federal funds futures point to very high odds among investors that you will firm policy 25 basis points today. As shown in the bottom left-hand panel, the Desk's survey of primary dealers, which was updated on Friday following the labor market report, indicates that dealers unanimously share the expectation of another ¼ point move today. All of the dealers also think that you will again characterize the risks to growth and inflation as balanced, and most expect that you will retain the "measured pace" language or some variant of it. The solid blue line in the bottom right-hand panel again shows the current path for the expected funds rate derived from futures contracts but focuses on just the next few months and assumes that policy moves will be made only at meetings. The expected value of 1.61 percent for the September 21 meeting suggests that market participants see only about a 2 in 5 chance that you will boost the funds

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<sup>3</sup> The materials used by Mr. Madigan are appended to this transcript (appendix 3).

rate another  $\frac{1}{4}$  point six weeks from now. And the value of 1.89 percent for the December 14 meeting indicates that markets have built in only two and one-half tightenings of 25 basis points over the four meetings remaining this year. By contrast, at the time of the June meeting, investors anticipated an average of a  $\frac{1}{4}$  point move at each of the remaining five meetings.

The same factors that have spurred market participants to ratchet down their expectations for the pace of tightening might lead you to contemplate leaving policy unchanged at this meeting, as discussed in exhibit 2. As portrayed in the top left panel, the surge in payrolls earlier this year has tailed off sharply in the past three months. And incoming NIPA data for the first half of the year (the second line of the right-hand panel) revealed that economic growth was  $\frac{3}{4}$  percentage point slower than had been estimated by the staff in the June Greenbook. In response to the weak employment data for June and July as well as to other indicators, the staff has revised down appreciably its forecast for economic growth in the second half of this year (the third line) from 5 percent in June to about 4 percent currently. As reviewed in the middle panel, the staff forecast suggests that a considerable amount of economic slack will linger over coming quarters. The output gap is projected to shrink slowly and still be around 1 percent at the end of next year. Partly reflecting that slack, both core inflation and overall inflation are forecast to move lower over the second half of this year and during 2005 (the bottom left-hand panel), with the rate of core PCE inflation edging back below  $1\frac{1}{2}$  percent by the end of next year. Particularly with this price forecast, the Committee may not be satisfied with a prospect for continued slack and may wish to foster increased resource utilization by pursuing a slightly easier path than in the staff forecast, starting with an unchanged stance of policy at this meeting.

Market expectations for inflation could be read as giving the Committee some latitude in the timing of its policy tightening. As shown by the black and blue dashed lines in the bottom right-hand panel, the difference between yields on nominal and indexed Treasury securities suggests that inflation expectations in financial markets have reversed course over the past few months, declining significantly from their recent peaks, while the solid red line indicates that households' longer-term inflation expectations have remained fairly stable at a level just under 3 percent.

At the same time, though, the Committee might find the persistent relatively high level of inflation expectations to be troubling and one of a number of factors that incline it toward the continued tightening of policy at this meeting that is discussed in exhibit 3. With the economic expansion now apparently well established, even if its pace is somewhat below earlier expectations, the Committee may still believe that the dominant policy consideration is the need to reduce the existing degree of monetary accommodation. As shown by the solid line in the top panel, the real federal funds rate is not only low but negative, and it has edged down on balance over the past year as inflation has increased. Moreover, it is noticeably below even the lower edge of a range of estimates of its equilibrium value. The 25 basis point firming of alternative B would move the real rate toward zero, whereas a 50 basis point action

would leave it at about zero and just within the range of estimates of its equilibrium. In addition, as shown in the middle panel, a firming would be consistent with results from a range of monetary policy rules that are reported in each Bluebook.

As indicated in the bottom left-hand panel, the Committee may be attracted to the 50 basis point increase in the funds rate at this meeting of alternative C if it is especially concerned about the highly accommodative posture of monetary policy implied by a negative real federal funds rate. The Committee might also feel that the staff has read too much into the recent run of weak economic indicators. By many measures, financial conditions remain quite supportive of growth, and the Committee may judge that it is just a matter of time before very low real rates of interest, if maintained much longer, show through in accelerating economic growth and, possibly, higher inflationary expectations and actual inflation.

In view of the spate of soft indicators, though, the Committee may judge that the 25 basis point firming of alternative B is appropriate for this meeting. As noted previously, inflation expectations, for now, appear to be well contained. And while the Committee may feel that the existing degree of monetary accommodation needs to be reduced over time, it may also believe that incoming data have tended to confirm its previous judgment that policy can be tightened at a measured pace. Assuming a gradual tightening of policy, the staff forecasts a moderate economic rebound, persisting resource slack, and a resumption next year of some net downward pressures on core inflation. Moreover, market participants have come to believe that policy will be firming at a gradual pace, and a larger move at this time would likely prompt a sharp adjustment in market prices and could provoke considerable uncertainty about the Committee's motivations and intended policy path.

Should the Committee choose to move by 25 basis points at this meeting, the remaining issues have to do with the language of your announcement. These issues are addressed in your final exhibit—the *third* revision of Bluebook table 1. [Laughter] The second revision, which was circulated to the Committee yesterday, responded further to the weak employment report and in particular to the suggestions of several policymakers. This third revision is substantively similar to the second, with the change in wording intended primarily to simplify the language. As shown in rows 3 and 4 of alternative B, the rationale section of this version reads as follows: “In recent months, output growth has moderated and the pace of improvement in labor market conditions has slowed. This softness likely owes importantly to the substantial rise in energy prices. The economy nevertheless appears poised to resume a stronger pace of expansion going forward. Inflation has been somewhat elevated this year, though a portion of the rise in prices seems to reflect transitory factors.” Here I ask that you note a slight fourth revision—“seems to reflect” rather than “evidently reflects” transitory factors. As shown in rows 5 and 6 under alternative B, June's assessment of continued balanced risks to both sustainable growth and price stability would be retained today, together with the indication of the Committee's judgment that policy accommodation can be removed at a measured pace. Certainly, both upside and downside risks to growth as well as inflation can be identified, and

recent developments would seem to support a continued belief about proceeding at a measured pace.

In a memorandum distributed to the Committee last week, Vincent Reinhart discussed alternative wording that could eventually supplant the current risks assessment and facilitate the deletion of the “measured pace” language. That wording is shown in row 5 of alternative C. In brief, it would separately characterize the risks to sustainable growth and to price stability—and potentially the overall risks—on the explicit assumption that the stance of policy was maintained for several quarters. In current circumstances, with the real funds rate estimated to be well below equilibrium, those risks would most likely be viewed as to the upside. That new wording could conceivably be used for a time simultaneously with the existing “measured pace” sentences or be substituted for them immediately. Although the Committee may see advantages to moving to the new formulation over time, one consideration in a contemplation of adopting it today is that any change in the form of the risk assessment is, at present, completely unanticipated by the markets. Without the ability in the announcement to explain in detail the conditionality of the forecasting exercise in the alternative wording, yields could back up somewhat if an assessment of upside risks were introduced without warning at this time.

By contrast, it seems likely that a choice of alternative B today, accompanied by an announcement that included an assessment of balanced risks, that continued to suggest that policy can be firmed at a measured pace, and that took note of the recent moderation in growth and in the improvement in labor market conditions would elicit little immediate reaction in financial markets. That concludes my prepared remarks.

CHAIRMAN GREENSPAN. Questions for Brian? If not, let me get started. I think one of the problems we run into is that monthly estimates of employment have an exceptionally wide potential variance. Remember, we’re dealing with 130 million workers, and 1 percent of that is still a huge number. It is readily ascertainable that if we have significant volatility, as we also do in the case of changes in productivity, we can get some remarkable statistical changes in the employment data without all that much change in the growth pattern of overall economic activity. And, indeed, I suspect that’s part of the problem we are running into.

There is, however, a more general question that we have discussed in the past but that is perhaps worthwhile reiterating. It relates to what is lacking in this recovery—namely, a degree of enthusiasm on the part of the business community to move in advance of the numbers and expand

capital spending and hire employees before they are needed in an endeavor to be positioned to accommodate anticipated growth in demand and perhaps improve market share at that time. In the past, anticipatory business spending was reinforced by the fact that recessions were not as shallow as the most recent recession or the one before that. As a consequence, the current cyclical rebound does not have the momentum that one typically sees in an economic upswing, especially in terms of an inventory turnaround that feeds on itself and induces a degree of aggressive activity on the part of the business community. The latter shows up in surges in new orders, further inventory accumulation, increased production, very significant hiring, and a slowdown in output per hour if not in underlying structural productivity.

What we are seeing in the data, as has been commented on previously, is a level of capital investment and inventory investment that is falling significantly short of cash flows, a highly untypical development. Why that is occurring is not all that difficult to hypothesize. Clearly, it stems from the shallowness of the recent recession and the limited momentum of the resulting rebound. But as we can perceive in detail at the micro level, we are also witnessing an unusual type of concern that is not classifiable as business optimism or pessimism. It takes the form of a high degree of caution stemming from the corporate scandals, the consequent aversion to risk-taking by boards of directors, and the very clear rise in the hurdle rate of return in the last couple of years. We can't measure that readily on a macro level, but we can do so by listening to corporate executives who say, with some exaggeration admittedly, that they spend a disproportionate amount of their time with their general counsels. That means that when they go into the boardroom for a decision on a capital project, which in the past typically used to be a pro forma activity, there is considerable trepidation as to whether the final resolution will be that somebody will ask for the resignation of the CEO.

Now, all this may seem in some degree apocryphal, but in one sense it is not. To the extent that we find a good deal more sluggishness in this recovery than can be accounted for by rising energy prices, there have to be other reasons aside from the shallowness of the recent recession. Human concerns, if I may put it that way, do explain some of the sluggishness. In any event, what I hear in talking to business executives is that the absence of the very significant surge in business hiring and other spending that we ordinarily see is associated with widespread efforts to get the last modicum of efficiency out of a company before a single new worker is hired. That's what's happening. And, clearly, this has been an extraordinary period because, in all the history that I can remember, we have not been through a surge in productivity of this nature in an environment of considerable softness. This makes the jobs number a highly unstable number. It also makes it a far less significant indicator of economic activity than I think we tend to regard it.

We are usually of the view that the employment data released on the first Friday of every month are the first real indication of economic activity that we see in that month. That was largely true when productivity growth was 1½ percent and it didn't vary all that much. Indeed, the hours figure was as good a proxy for real GDP as we could get. But when we have the wide variances of output per hour that we have been observing, we have to ask ourselves what, in fact, the employment data contribute to our estimate of actual GDP. In a technical sense, the answer is nothing. That's the denominator of the productivity number. It's not the numerator.

If we assume that we already have data on GDP for July, which we have built up from the product side, would we even advert to the employment figure to determine the GDP number? The only reason we do it is that we believe productivity growth is relatively stable. That was the case in the past, but it's highly questionable whether that's the case today. What we do know is that what determines the level of consumption is effectively income, and income is the mirror image of the

nominal GDP or of cash flow if you want to put it that way. To be sure, it does matter whether consumer expenditures are being made by people who are employed or unemployed, but not all that much. The propensity to spend out of cash flows is not evidently that different between the employed and the unemployed. Therefore, the particular rate of productivity growth that distributes income between the employed and the unemployed is not as critical an issue as I think analysts tend to think it ought to be. This means that it doesn't matter all that much what employment is. What matters is income. And income in and of itself is a function of GDP.

Now, we obviously use the employment data because they are so current, but we use them in the context of the presumption that for any particular quarter there is a limit to GDP growth. How we behave with regard to the nth revision of the Greenbook forecast when new employment data become available is that much of the change in employment ends up, as indeed it should, in the productivity numbers and not in the level of GDP. Therefore, the emphasis we are putting on these monthly employment changes is misplaced in my view.

In any event, there does appear to be some pickup in the data for the third quarter, fragmentary as they are. We clearly saw a significant rise in motor vehicle sales in July. Moreover, Mike Moskow's contacts at some of the motor vehicle companies are reporting that early August sales suggest, if anything, an increase from the significantly elevated level of light vehicle sales in July. If that turns out to be the case, we may start to get more widespread spending surprises on the upside. The latter might not have an immediate effect on GDP, largely because they would be offset by inventory reductions, but they would have such an effect down the road. We also have seen chain store sales move up fairly consistently for the last number of weeks.

The hesitancy in corporate borrowing, which has been associated in part with the excess cash flows of recent quarters, may be coming to an end. Corporate borrowing has clearly picked up

in recent weeks. We've seen the largest numbers in some time on the issuance of bonds, extensions of short-term debt, and even equity offerings. As a consequence, what we probably are observing is a flattening of profit margins, and perhaps even some retrenchment; but clearly we are seeing the beginnings of the type of pressure consistent with the financing gap exhibited in the Greenbook for the fourth quarter. Remember, we are only about seven weeks away from the fourth quarter, and something seems to be in the process of changing.

In sum, it strikes me that the softness that was very evident in May and June is difficult to find in the July numbers. I must admit that I find initial claims to be an important statistic because the error rate variance in those numbers is very low. To be sure, the data on new hiring implicit in the payroll figures, if you take them at face value, show a fairly pronounced decline in the rate of new hiring. That seems odd because other data for recent months point to a significant pickup in the turnover of jobs in that the number of employed people who are shifting jobs has gone up quite significantly, at least in the household data. That is usually indicative of increased confidence in the job market. In addition, no one has mentioned the quite strong consumer survey indications that jobs are becoming increasingly plentiful. The Conference Board's latest measure shows continued strength in that regard. I have a healthy skepticism about the 629,000 employment increase in the household data for July, but if we put June and July together the average is still quite large. The variance, unfortunately, is also very large. While we have to be cautious about the employment data, the markets in my judgment responded far more negatively to the release of the latest numbers on Friday than I thought the underlying evidence warranted.

This leads me to what I think policy ought to be, which—if you'll excuse the expression—I've termed “opportunistic disaccommodation.” [Laughter]

MR. STERN. It has a nice ring.

CHAIRMAN GREENSPAN. What that essentially means is that, given an unbiased balance of risks at this stage, we should be choosing to raise rates, and we should endeavor to get back to a neutral policy stance as quickly as we can. The more successful we are in doing so, the better policy will be. I am a little concerned about leaving gaps in the timing of our moves largely because that assumes that we can see into the future with some degree of accuracy. We have been very fortunate with our announcements and our guidance to the markets in the last year or so. It's not something that we can repeat consistently. We will not be able to make statements that somehow imply that we have great discretion on what it is we can choose to do, even as we say we will be guided by the data. The problem is that we may be overwhelmed by the data and our policy discretion may be completely lost in the process.

Consequently, the sooner we can get back to neutral, the better positioned we will be. We were required to ease very aggressively to offset the events of 2000 and 2001, and we took the funds rate down to extraordinarily low levels with the thought in the back of our minds, and often said around this table, that we could always reverse our actions. Well, reversing is not all that easy. That's the reason why, when we have a chance to reverse as I think we do in this period, we should take advantage of it. Moreover, anything other than moving at every meeting strikes me as something that requires a hurdle of evidence greater than usual. I don't deny that, if we suddenly are confronted with exceptionally weak data or oil prices spike to \$80 a barrel and we begin to see some significant weakening in the economy, continuing to increase the federal funds rate in the face of such developments would be a risky operation, even though I agree with Governor Gramlich, who said that persistent tightening would in general be the appropriate course for policy. I can conceive of developments that may argue against raising rates further at some point. In my judgment, they would have to be very significant to stop us from getting back to a neutral policy

position and in a position to move in either direction. At that point, our balance of risks assessment will truly guide the direction in which we will ultimately go.

We've often discussed that ideally we'd like to be in a position where, when we move as we did on June 30 and I hope today, the markets respond with a shrug. What that means is that the adjustment process is gradual and does not create discontinuous problems with respect to balance sheets and asset values. That is not something we're going to be able to accomplish very often. I think we are able to do it in this period, and we should try as best we can to continue the tightening process until we reach our objective. That would be the optimal outcome. But I frankly don't anticipate that we are going to be able to wend our way back to neutrality, wherever that ends up being, without having any market disruptions as a consequence of moves that we make at meetings. This is an exceptionally difficult thing to do. Yet it's the type of thing we ought to reach for and see whether we can manage it, recognizing that if we succeed we should not say, "Well, we have now solved the problem of monetary policy." All we will have succeeded in doing is to have worked our way out of a very difficult policy scenario that occurred as a consequence of the bubble economy that emerged in the latter part of the last decade and the subsequent events. Therefore, what I'd like to put on the table is that we move 25 basis points and make a statement equivalent to whatever version is the revision that Brian was talking about. Would somebody like to comment? President Poole.

MR. POOLE. Mr. Chairman, I support your recommendation completely. I think, as Ben put it, that we need to stay on track. The only suggestion I would have in terms of the statement is that I think there a number of things besides energy prices that may be responsible for what we're seeing in the data. I have a whole list of them written down here. Therefore, I would strike the sentence that says "this softness likely owes importantly to the substantial rise in energy prices." In

my view there's a laundry list of things including, for example, uncertainties about the situation in Iraq. Of course, that's tied up with energy prices, but it goes beyond just energy. My only other comment would be that it wasn't clear to me from what you said what happens to the language under the assessment of risks in alternative A, which adds the phrase "and sustainable economic growth" at the end of the last sentence. Were you proposing to include that?

CHAIRMAN GREENSPAN. I would argue against it.

MR. POOLE. Okay. I have a preference for including it on the grounds that, if we get another employment report and perhaps other data of the sort that we've already had, we might want to pause in September.

CHAIRMAN GREENSPAN. There's nothing that prevents us from doing that.

MR. POOLE. I understand that. But my preference would be to condition the market to that possibility and read that as it stands. I don't feel strongly about it, but I'm explaining my preference.

CHAIRMAN GREENSPAN. Well, it's another side, but there is an interesting reason for my position. If we're going to make the statement that accommodation can be removed at a measured pace and then we say, "Nonetheless, the Committee will respond to changes in economic prospects as needed," that is clearly related to price stability on the upside. It makes no sense to talk about putting both price stability and maximum sustainable growth in that particular context. If you're going to do that, you might as well just take that sentence out completely. The internal coherence of that, in my judgment, is questionable.

In any event, to be sure, there are lots of different things that could be causing the softness, but at least in my judgment, the major one is very clearly energy. Not to acknowledge energy as an issue in this statement, with all the events that are going on, suggests that we're working on a

different planet than the one on which we live. That is not to say, though, that there aren't other factors involved. In fact, the word "importantly" qualifies the role of energy prices; the statement doesn't say they are the "sole" reason for the softness we're seeing. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. Number one, I support your approach. I agree also with the notion that, at least this time, we should not fiddle with this statement very much. We are on track to have a more thorough discussion of the language in our statements in the near future, and I think the minor adjustment approach is the right decision for this meeting. Second, I agree with you very much in that I, too, would be reluctant to leave gaps in our moves toward policy neutrality. I think almost methodically raising the funds rate is the right thing to do. If we do it at some meetings and not at other meetings, that's just going to cause a lot of attention. Of course we have to look at the data, but as long as we're in a position where the level of the funds rate is so highly accommodative, in general I would lean toward the methodical approach of taking baby steps at each meeting unless we get some jarring new information. Third, I would keep in the reference to energy prices, as my remarks indicated. I think they are important. In my view you are right that, if we don't mention them at all, it will look as if we're vaguely out of touch.

On the statement itself, you may be right on the employment side. Essentially, the way I'm interpreting what you say is that you're criticizing employment in the first difference sense because the 32,000 is a number that is estimated with error on the base of millions of people being employed. I still look at employment a lot for output gap purposes, just to see how far the expansion has to run. Our statement focuses on the first differences part of employment, not on the levels. Maybe we ought to commission our drafting committee to think about a different way of referring to the employment picture. I wouldn't do it this time, but in general we might want the statement to focus more on levels of employment and not so much on recent changes, for the reason

you suggested. That's one of the things I'd put on the agenda to deal with in the statement as time goes on, but for this meeting I would go right down the line with alternative B.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I certainly agree that your proposal is the right thing to do at this time. I like your concept of "opportunistic disaccommodation." I don't know exactly what it means, but I like that concept! We are in a position to move now, and a move today will be well understood. It's well priced into the market. It won't have a big market effect, and it takes us in the direction we want to go. You mentioned toward the end of your remarks "going to neutral," wherever that might be. That's a really interesting question right now. Where is neutral? I find the chart in the Bluebook, with the wiggly shaded area that goes up and down again on the estimated ranges of equilibrium rates of interest, somewhat of a puzzle. I know I need to think about that more, but it doesn't affect how I feel about the policy decision today. I think a 1/4 point increase in the funds rate target is the right thing to do.

I don't know what to do about the statement. I have some sympathy for trying to get out of giving the market too much confidence about what we're doing. You seemed to reflect a bit of concern about that in your questions earlier. I'm worried about that because I think we need to look at the data as they come in and we need to have some flexibility in how we assess conditions moving forward. I worry about the market continually believing that it knows exactly how we're going to act. But at this stage of the game, maybe it's okay that the market knows what to expect in terms of our policy. So I guess I'd go with your recommendations on the alternative B formulation. I certainly hope that we can get ourselves to a situation in which Vincent's recommended language, or something like it, is where we end our statements. I'd prefer to leave people hanging a little as

we go forward and not be quite so confident about what we're going to do. But for now this approach is good.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Mr. Chairman, I agree completely with your recommendation. I think the sooner we get back to neutral, the better off we are, and I agree that we should have a high hurdle for not raising rates at meetings while we're in this period of removing accommodation at a measured pace. And I think it's important not to leave gaps in the timing of our policy moves. Also, I believe it's important for us to mention energy prices in this statement.

There is one point that I just want to mention. I agree with the statement as written, but in section 3 of Brian's table, the rationale sentence says, "The economy nevertheless appears poised to resume a stronger pace of expansion going forward." That is a little different from what we've done before. I agree with the sentence, but it is forward-looking, and I don't think we've had forward-looking sentences before in the rationale section of the statement. I don't disagree with it, but I think we should recognize that.

CHAIRMAN GREENSPAN. Well, that thought is implicit. If we don't believe that, why are we moving the funds rate up 25 basis points? So, essentially, it is implicit in our actions.

MR. MOSKOW. As I said, I don't disagree with it, but I think it is different from what we have been saying in the past.

CHAIRMAN GREENSPAN. Oh, absolutely, it is. And one of the things that I think we are finding with the statement is that the increased flexibility we have created for ourselves by working through the phraseology in the Bluebook gives us greater latitude to do these statements in ways in which each meeting is handled idiosyncratically. From an exposition point of view, I think that is essential.

MR. REINHART. Mr. Chairman, I might just point out that the sentence before that—where we say that a portion of the rise in inflation is transitory—is itself predictive. So, it isn't unprecedented to be giving some sense of an outlook in the rationale part of the statement.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. I support your recommendation, Mr. Chairman. I think we might encounter circumstances under which we'd want to skip a meeting in our measured pace of removing policy accommodation—perhaps to “undisaccommodate.” [Laughter] But I agree with Governor Gramlich that a moderate rise in energy prices would not be a rationale for doing that. That's a circumstance in which it's important to maintain the anti-inflationary dimension of this Committee's policy.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. I support your recommendation, Mr. Chairman. I like the basic strategy of keeping the pressure on to try to get us back to neutral. In answer to President Minehan's question of where is neutral, my answer has always been “north of here,” so I'd keep going in that direction. Neutral may not mean a single number, and the definition of neutral may not be fixed. But as long as we're moving north of where we are currently, I think it's a good idea.

On the wording, I know four versions of this matrix have been handed out. Ordinarily, that would be problematic. I think each actually improved the statement. I like the wording of the last version and the reference to energy. The way it is posed here actually fits better my way of seeing the situation, so I'm comfortable with the wording as it is presented.

CHAIRMAN GREENSPAN. President Lacker.

MR. LACKER. I support your recommendation, Mr. Chairman. I think it is appropriate that we maintain a high hurdle as we go forward before skipping a beat. I believe this measured

approach is important, as Governor Bernanke said, to maintain the credibility of our commitment against inflation. Even with a few more soft patches as we go forward, I think that's going to be the ever-present danger in the near term.

I also share your opposition to including the phrase "sustainable growth" in the last sentence, but for a slightly different reason. The way it is worded there makes it sort of a twin pillar of our obligations. We have moved over the last few years to recognizing a difference between our desire for price stability and our desire for sustainable growth, and I wouldn't like that difference to be eroded or fuzzed up in the public's mind.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, I think we should move toward neutral, and I find the rationale for doing so as stated here pretty good, so I'm fine with that. I would like to leave in the sentence about energy prices because energy is the elephant in the room and I think we should acknowledge it. And I don't think we need to modify the statement any further than that. Thank you.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Mr. Chairman, I support your recommendation. I have one question and one observation. I think I got confused in the course of your exchange with Bill Poole. Is the last phrase under the assessment of risk in or out? I thought there was some question about putting a period after "needed." What is the proposition on the table? Does the wording remain as written here?

CHAIRMAN GREENSPAN. Do you mean the very last statement under "assessment of risk"?

MR. GUYNN. Yes.

CHAIRMAN GREENSPAN. It reads, “Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability.”

MR. GUYNN. Okay. Now for my observation. I may have not followed your discussion about the labor market and how we deal with it—and maybe this is what Ned was talking about. As I read the statement, it seemed to me that we may have contributed to the emphasis that people are putting on our judgment about labor market conditions by having pointed to the employment situation in almost all of our recent statements, including this one. I don’t know how to translate what you said into better words, but maybe I misunderstood what you were saying.

CHAIRMAN GREENSPAN. No, there’s nothing wrong with discussing the condition of labor markets. It is part of our overall evaluation of what is going on in the economy. But the argument that I was making is that we are overemphasizing the importance of employment as an economic activity issue. In other words, one often hears that the purpose of the economy is to create jobs. Well, every economy creates jobs, and the economies that create them more often than not are subsistence economies—where the incentive to work in one way or another is complete. You don’t have unemployment in subsistence economies. So, it is a question of getting a notion of the sequence of events in terms of what causes what. That’s the only issue that I was addressing.

MR. GUYNN. That’s helpful. Thank you, sir.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. I, too, support the ¼ point increase in the funds rate at this stage. Also, I think that the “measured pace” language and the conditional clause have served us remarkably well so far. I believe that people in the marketplace pretty much understand what we’re trying to do and where we’re going. The question for me was whether we wanted to expand that last conditional phrase. There may be some value to doing it, but I agree that it isn’t

essential. I don't think it unduly constrains us. My guess is that we would pause only if the economy seemed to be going substantially off course.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. I agree with your proposal, including no diddling with the language.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. I agree with your proposal, Mr. Chairman, in all its particulars, including the language. I think it is most likely that economic growth will pick up and that the output gap will begin to close again, and therefore, we should continue with our measured pace of tightening. I do think that I would put a little more emphasis on the employment data than you seem to be doing. I agree that, when productivity is moving around, employment is not a good indicator of economic activity.

CHAIRMAN GREENSPAN. It's not as good an indicator as when productivity is not moving around.

MR. KOHN. Right, but it is something of an indicator of whether we're putting people back to work. In fact, it's a very good indicator of that. [Laughter] And there is slack in the economy, so I wouldn't ignore it entirely. I agree that we need to get back to neutral as soon as we can, but I would say as soon as we can consistent with achieving maximum employment, which is a directive in the Federal Reserve Act along with keeping prices stable. I agree that the default option is to keep moving toward neutral, but my sense is that I'd be a little more data-dependent on how fast we can get there than I think you were suggesting. The important thing is not so much the current federal funds rate but what people in the market expect. It may be that, if economic activity keeps softening, we will need to change expectations in the market by skipping an action at a

meeting at some point. So I agree with the general tenor of what you say; I'm trying to change it just a bit around the edges.

CHAIRMAN GREENSPAN. Actually, you're raising the issue that Governor Gramlich raised, which is the level of employment as distinct from the change and the level of the unemployment rate. These are other indicators and goals of policy. I'm talking mainly about working off the employment statistics in our analytic evaluation of how the economy is doing as distinct from raising the question of whether full employment, however we define it, is a desirable goal in the same sense that full utilization of resources is a desirable goal. I should hope it is. Indeed, that's what we are mandated by statute to adhere to as a goal. But that is not the first difference question, which I think Governor Gramlich very appropriately pointed out. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. I agree with your recommendation for this meeting and with your defense of the statement as outlined in alternative B. I won't go into all the issues about energy prices, et cetera.

To some extent I am both following Governor Kohn in sequence and agreeing in intellectual approach here. I agree with you that the principle should be a desire to move toward neutral, but I worry about setting up a hurdle that is uniformly higher now based on nothing in particular other than the desire to move to neutral. I do think, as you said at one point, that each meeting should be handled idiosyncratically. And to me that means that we really have to continue to be driven by the data and forecasts. From my perspective, given the unusual nature of the slowdown—the range of shocks that the economy has faced and may continue to face and the fact that the forces holding back consistent above-potential growth that will close the output gap are all rather mysterious to us—I'd be a little cautious about a willy-nilly declaration that the hurdle rate for a pause in

removing policy accommodation has become much higher. And as I noted in my earlier statements, whether or not we pause at some point has to depend very much on the data; but I think the market also has given us some signals that a pause would not be completely unexpected, so we shouldn't worry too much.

Finally, without piling it on, I don't think it's appropriate for us at this meeting just to decide that part of our dual mandate is unimportant. I'm not sure we have the right or the authority to do that, and I'm not sure that—

CHAIRMAN GREENSPAN. Are we doing that?

MR. FERGUSON. No, I'm not suggesting that we are. I'm saying that a few members have suggested that perhaps we are. But I know you would not tolerate that! [Laughter] I am doing what a Board member should do, which is supporting the Chairman in reinforcing the law. People have laughed about it, but to me it's pretty clear that we have to be relatively symmetric in our concern about both sides of the mandate. Thank you.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. I'm comfortable with the statement and with your recommendation. I just want to raise a question about your "no surprises" rule. That's not quite the way you framed it. I'm a little uncomfortable being in a regime where we never surprise—

CHAIRMAN GREENSPAN. That's not what I said.

VICE CHAIRMAN GEITHNER. No, no, I'm not trying to say that you did.

CHAIRMAN GREENSPAN. In fact, we purposely surprised the market in January 2001. We structured our announcement so that the market would truly be surprised, as you may recall, by moving the date up on when we actually made a move. So I'm not arguing that surprise has no

value. I'm basically saying that, if we have to surprise the market, by definition we are behind the curve.

VICE CHAIRMAN GEITHNER. Well, with that qualification, I'm fine. I just say this because we're in a situation where the market is now pricing in moves of somewhat less than 25 basis points a meeting for the next two quarters, but we want to make sure that we have the capacity to move at that pace, if not faster, without creating the risk of adverse surprise. We have the tension of that. Maybe the data will save us from that problem because the markets may react to the data by pricing in a somewhat steeper path than is priced in now. But we shouldn't be in a position, if on the eve of the next meeting we have a somewhat greater distribution of views about the outcome for that meeting and there has been some fundamental change in our forecast, where we're constrained to move another 25 basis points. So I just offer that slight qualification on an extreme version of the no-surprise doctrine. I support your recommendation.

CHAIRMAN GREENSPAN. We have on occasion run into situations where there was a 50 percent probability of our moving one way or the other, which meant that no matter what we did, it would be a significant surprise. That has not been the case recently. But I'm not sure we know how to avoid that. Governor Bies.

MS. BIES. Mr. Chairman, I support your recommendation, and I do like the wording in the third revised version better than that in the previous drafts. I think the changes were positive. That's all I have to say.

CHAIRMAN GREENSPAN. President Yellen.

MS. YELLEN. Mr. Chairman, I agree with the proposal to raise the funds rate 25 basis points today and the idea that the default going forward should be to continue doing this on a regular

schedule. But I agree with Governors Kohn and Ferguson that our decisions should be data-dependent. I am concerned about the downside risk and think that we might need to pause.

I prefer to include sustainable growth along with price stability in the final sentence. First of all, I believe very strongly that we have a dual mandate, and that language reflects it. But beyond that we have the sentence in line 3 that says, "The economy nevertheless appears poised to resume a stronger pace of expansion going forward," which is a rather confident statement that we feel we'll be able to continue on the path of raising rates. And I think the reference to sustainable growth simply acknowledges that there is a slight downside risk to that forecast.

I understand the desire also to shift back to more formulaic language concerning risks and away from the kind of explicit statement we've had about future policy, though I personally think the latter approach has worked quite well. I was struck, however, by the difficulties of describing the risks as I read the language in alternative C. I dislike the language in alternative C intensely; I won't go into the reasons right now. But as Governor Gramlich mentioned last time, the Committee has thought about this issue quite thoroughly and has studied the options, and there are many problems with the kind of dual risk assessment that is shown in alternative C. I can't see going back to that kind of language easily without a thorough discussion of the problems involved.

CHAIRMAN GREENSPAN. I happen to agree with you on that. I think it's a very difficult issue, and it's one that Vincent will discuss for a few minutes a little later. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I also support your recommendation for a 25 basis point increase in the fed funds rate target. And along with others I, too, like this version of the language better than the original. I also like the fact that we're not introducing a lot of change to

the language since every word we change is scrutinized in the market. So I am comfortable with this proposal.

CHAIRMAN GREENSPAN. Would you read the appropriate language, Mr. Secretary?

MR. BERNARD. First, with regard to the directive wording, which is on page 14 of the Bluebook: “The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth and output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with increasing the federal funds rate to an average of around 1½ percent.”

I will also read the sentence regarding the assessment of risks, which the Committee is also voting on. But before I get to that, I was asked to note that in box 4 under alternative B—and this, I guess, would be the fourth revision—the end of that sentence which says “prices evidently reflect transitory factors” should read “prices seem to reflect transitory factors.” What I will be reading now is the language shown under June FOMC in boxes 5 and 6: “The Committee perceives the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters are roughly equal. With underlying inflation still expected to be relatively low, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured. Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability.”

CHAIRMAN GREENSPAN. Please call the roll.

MR. BERNARD.

Chairman Greenspan	Yes
Vice Chairman Geithner	Yes
Governor Bernanke	Yes
Governor Bies	Yes
Governor Ferguson	Yes
Governor Gramlich	Yes

President Hoenig	Yes
Governor Kohn	Yes
President Minehan	Yes
Governor Olson	Yes
President Pianalto	Yes
President Poole	Yes

CHAIRMAN GREENSPAN. Vincent?

MR. REINHART. I have three brief items to bring to the Committee's attention. Let me deal with the two bureaucratic ones first. Dick Porter, now of the Federal Reserve Bank of Chicago, conducted a survey of readers of the Bluebook to see how they felt about the content and the distribution of that document. There are thirty-six separate responses from people at the Board and the twelve Reserve Banks, expressing a very wide range of views. Indeed, the range is sufficiently wide to make me glad you're asked to vote on my appointment as Secretary only once a year!

[Laughter]

As to the content of the Bluebook, there were some suggestions about the structure that I think we'll be able to fold in over time. As to its distribution, there was widespread enthusiasm for the Secure Document System as a way of delivering that document more quickly to the Reserve Banks. But there were also some suggested changes, a few of which would involve changing the FOMC's Program for the Security of Information. A couple of the suggestions we can put in place fairly quickly, including allowing access to SDS through laptops, given that NRAS provides a sufficiently secure platform for that communication, and also allowing differential access to those with Class I versus Class II access. So we'll be doing that. As to the number of staff with access to SDS, I got very conflicting guidance on that, so I've asked a couple of people here at the Board to work with the research directors at the Reserve Banks to spell out some potential alternatives.

Second, I surveyed the Committee over the period on preferences regarding the special topic for your two-day meeting in February. A clear winner emerged among the thirteen potential topics

I listed. Three out of four respondents listed a discussion of the Committee's inflation goal as the preferred item, with the second most cited item being a discussion of inflation targeting and communications in third place. Anyway, I rated the responses by the order in which they were cited. The inflation goal seemed to be the favorite topic. So Chairman Greenspan has asked me to put that topic on the February agenda, with the intention of discussing the appropriate inflation goal for the Committee and potential means to communicate it to the public, if appropriate.

Third, events evidently pushed further into the future your consideration of the structural tension of the risk assessment paragraph that I discussed in a memo distributed to the Committee on August 5. That is, the language about removing accommodation at a measured pace gives the public some sense about the direction of rates independent of your assessment of risks to the economy. You might want to bring more content into that economic assessment, which would be especially important when the time comes to eliminate the removing accommodation sentiment but might also be viewed as useful independent of that. I had one proposal to do so in my memo, and I would appreciate your feedback over the next couple of weeks, as it will influence the policy alternatives presented in the Bluebook.

CHAIRMAN GREENSPAN. Questions for Vincent? If not, let me confirm the date of the next meeting—September 21, 2004. This officially terminates the FOMC meeting, and I request that the Board of Governors meet in my office to discuss requests for changes in the discount rate.

END OF MEETING